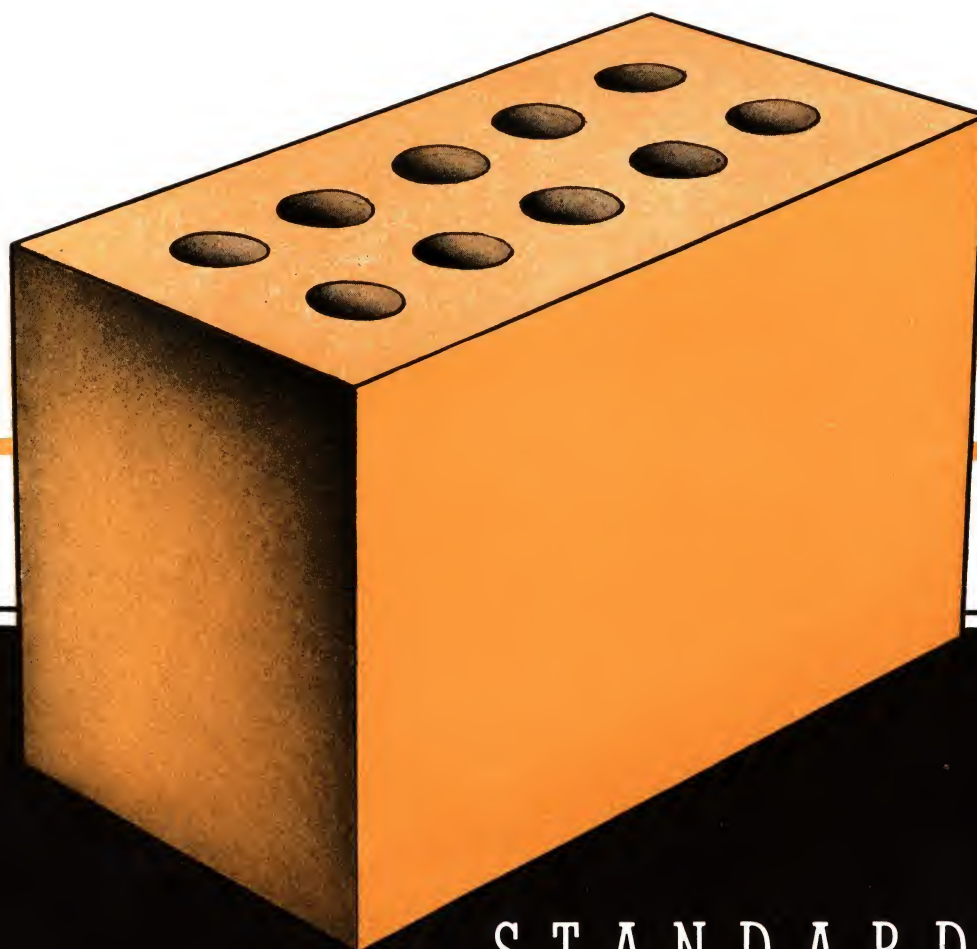


HANDBOOK



STANDARDIZED

GLAZED BRICK & TILE

GLAZED BRICK & TILE INSTITUTE

THE GLAZED BRICK AND TILE INSTITUTE

THE GLAZED BRICK AND TILE INSTITUTE—PURPOSE

The Glazed Brick and Tile Institute was formed by the responsible manufacturers of the industry to codify the highest standards of quality and to unify physical dimensions of all units. In this manner the architect is able to design and specify from one set of specifications and be certain that no matter what material is used the shapes and sizes furnished will be the same and the quality will be certified above the Institute minimum.

PRODUCTS OF MEMBERS

The products manufactured are:

Ceramic Glazes in Matt—Satin and High Gloss Finishes—Solid.

Colors—Stippled—Mottled and Speckled Effects.

Salt Glazes—Glossy Finish—Gray, Cream and Buff Blends.

Clay Coated—Various Colors.

Experience has proven that fireclay bodies are superior for glazing. The Glazed Brick and Tile Institute specifications therefore are based on superior quality obtained with a *FIRECLAY BODY*. Specifications should always include the phrase "Glazed on a *fireclay body*."

RESPONSIBILITY OF MEMBERS

Glazed jobs require very exacting servicing. A primary requisite for Institute membership is that the member's factory be fully capable of serving jobs of any size of the quality required in the rigid Institute specifications. The members are established firms with years of experience on every conceivable type of glazed job.

All Members' samples bear an Institute label—certifying quality.

STANDARDIZATION OF SIZES AND QUALITY

Institute standardization has reduced the shapes made from over a thousand to several hundred. This simplification not only aids the architect in design and the contractor in execution, but represents cumulative experience of the industry on thousands of jobs.

The art of glazing has reached its present refinements as an evolutionary development from very crude beginnings. It takes years of experience to produce a fine glazed product and Institute specifications are meant to define for the user the minimum quality he should receive.

WIDE RANGE OF PERMANENT COLORS

Ceramic Glazes are furnished in mottled, stippled and speckled effects, and solid colors running from white to jet black. Salt Glazes are furnished in cream, buff or gray blends.

These colors neither fade, nor deteriorate, and can be restored to newness by a soap and water washing.

LIGHT REFLECTION

For light courts, basements, laboratories and any other place where light reflection is desirable, *there is no permanent equal to* light colored glazed brick and tile. On dark rainy days, white glazed brick or tile reflect 80 per cent light as compared to 35 per cent for wet sand lime brick and 40 per cent for a white painted or plastered wall (after two years).

INTEGRAL GLAZED WALL CONSTRUCTION

Structural glazed units are furnished to interchange or bond with brick sizes. An exterior wall is commonly specified 4" brick exterior and 8" brick or hollow tile backup. As the wall is run up the structural glazed units can be bonded into the backup material and thus have a wall that is exterior facing, load-bearing and interior glazed eliminating the extra cost and loss of space when the glazed surface is veneered on the inside. This construction in a masonry wall is affected to the least degree possible by vibration, impact or settling. See Page 20 for various sections of load bearing walls and partitions. All two faced walls should be constructed of two units, bonded as shown.

DESIGN POSSIBILITIES

Glazed units are well adapted to the modern trend with smooth unbroken surfaces. Ranging from standard brick size ($2\frac{1}{4} \times 8$) to 8 x 16 the mosaic possibilities are unlimited.

Glazed units, available in various colors, blend with limestone, granite and marble for classical structure exteriors, and with any type of interior trim.

INTERIOR FINISHES

Some interior conditions necessitate glossy glazes (Image Reflecting).

USE	FINISH	REASON
School Toilets	Glossy	This finish will not register pencil or chalk marks.
Swimming Pools	Glossy	A minimum amount of cleaning out necessary and minimum danger of bacteria adhesion.
School Corridors	Glossy	This finish will not register pencil or chalk marks.
Food Products Plants	Glossy	Less dirt adhesion and less chance of bacteria growth and odors, and can be cleaned with a hose.
Factory Toilets	Glossy	Intense usage necessitates smoothest finish to facilitate frequent cleaning

It is safe to say that the most sanitary results for interiors are obtained with a glossy (lustrous) finish. The slightly higher sound reverberation is easily and cheaply offset by ceiling sound proofing.

EXTERIOR FINISHES

(1) Matt (non-reflecting). This finish is generally desired from an architectural standpoint when used with stone or other non-reflecting materials in order that the brick work will weather in the same general way that the other material weathers. Since this product has a vitreous face, it can be cleaned satisfactorily without sand blasting.

(2) Satin Finish. This finish is satin but not shiny, even in large masses. It is cleaned easily with soap and water.

(3) Glossy or Lustrous Finish. This type of finish is bright, shiny and reflects images. It is generally preferred for buildings located near a dirty industrial center.

METHOD OF CLEANING

It is unnecessary to use acid to clean any glazed product that conforms with the Institute's specifications. The acid will not harm the glaze, but it may damage the mortar joint. Masons should be given a cloth to remove excess mortar as work progresses. After the masonry is finished, it should be cleaned by scrubbing with a bristle brush, strong soap and water. Abrasives need not be used.

TECHNICAL DATA

Physical Characteristics of Glazed Brick and Tile and Facing Tile

CERAMIC GLAZES

These are compounded of well known chemicals, thoroughly ground together then sprayed on a previously formed *fireclay body*. The sprayed unit is then burned at a temperature over 2000° F. which fuses the glaze to the body in such fashion that it is impossible to separate the two as their co-efficients of expansion are identical, and the glaze becomes an integral part of the body. The glazes are produced in various colors to give light reflection or light absorption. They are non-absorbent of any impurities and any acids (except only Hydrofluoric); and will resist exterior weather conditions in the most severe climate.

SALT GLAZE

This glaze is applied to a *fireclay body* as a vapor while the units are at a temperature over 2000° F. The resultant glaze being transparent takes on the color of the fireclay body—gray, cream or buff. The Salt Glaze (a sodium iron silicate) is smooth, lustrous (image reflecting) resists pencil or chalk markings and is one of the oldest known forms of sanitation. Salt Glazed ware produced centuries ago is still in an excellent state of preservation. Without doubt it is the most economical form of sanitary wall construction. To obtain a high degree of sanitation, a smooth and lustrous finish as manufactured by members of Glazed Brick and Tile Institute should be insisted upon.

CLAY COATED

Similar in appearance to the highest grade smooth face brick manufactured from fire clay. The vitreous surface is non-absorbent and is available in a variety of colors unobtainable in face brick.

FACING TILE—To Replace Plaster

The term "Facing Tile" is used to designate unglazed units in the Double (5" x 8" Face) and larger sizes manufactured by members of the Glazed Brick and Tile Institute and are similar in appearance to the highest grade Smooth Facing Material Manufactured from *Fire Clay*. These units are furnished in all the various shapes (with exception of cove and cap units) illustrated on pages 18 to 24 following, and are manufactured with smooth faces in pleasing buff and gray shades. The Standard Grading Rules, page 25, apply also to Facing Tile, except that the references to glaze and coating are omitted.

Facing Tile as manufactured by members of the Institute, is a quality product, adaptable to any structure where Face Brick would be used and gives less absorption and more sanitation than most units other than the Glazed or Coated products manufactured by the members of the Institute. Facing Tile used as a loadbearing material, compares favorably with the cost of plastered walls and never needs replacing or repainting.



The Ceramic Glazed Walls of the Pasteurizing Room and Stair Halls, Sheffield Farms Dairy Plant, Richmond Hill, Long Island. H. McNabb, Engineer — Stobdrier & Zetsche, Architects.

CERAMIC GLAZED STRUCTURAL TILE

A LOGICAL WALL SURFACE

Sanitation — Beauty — Light Reflection

Modern Dairies, Bakeries, Food Preparation Plants and Drug Manufacturing Laboratories demand the utmost sanitation and light reflection for wall surfaces. For this purpose the many advantages of Ceramic Glazed Brick and Structural Tile are unexcelled. The smooth impervious glazed surface affords no lodging place for bacteria. The wall surface can be kept immaculately clean and free from bacteria by hosing down with live steam and scalding water, even under high pressure without fear of dislodging the units which form an integral part of bearing walls and partitions.

The rooms illustrated are constructed with 5 in. x 8 in. Ceramic Glazed Units in a light brown and white mottled shade; assuring permanent, sanitary, outstandingly beautiful and highly light reflecting surfaces.



CERAMIC GLAZED BRICK

For Exterior Use

Use no substitute for Ceramic Glazed Brick when planning for permanent architectural beauty.

Ceramic Glazed Brick are particularly adaptable to the modern trend in design and are not limited to any particular type of structure. Manufactured in a wide variety of colors, including limestone and granite effects, in high gloss and matt finishes, this product offers unlimited flexibility in design and is adaptable to any conceivable type of building construction, whether used alone or in combination with other materials.

From the small "Taxpayer" to the huge Monumental Building, Ceramic Glazed Brick can be used effectively in the achievement of distinctive designs, as well as for architectural enrichment.

Because of their high compressive strength, Ceramic Glazed Brick has been approved without question by building departments throughout the country. It can be used as an integral part of bearing walls, thereby effecting a considerable saving in construction costs over non-structural veneering units.

Burned at high temperatures to insure permanence, Ceramic Glazed Brick that conform with the rigid specifications of the Glazed Brick and Tile Institute are "time tested" as well as laboratory tested and will withstand the elements satisfactorily in every respect even under the most severe climatic conditions. A product that literally keeps up with time.



Here is a striking example of Ceramic Glazed Brick as used for modernistic exterior treatment of the Hecht Building, Washington, D. C. Abbott Merkle & Co., Engineers.

The alternating bands of rich Ivory and Black colors provide a pleasingly attractive color scheme—and the water repellent and stain-proof ceramic glazed surface will retain its original beauty indefinitely, without any maintenance expense during the life of the building.



Photograph illustrates interior treatment of some of the rooms in the Administration and Toll Buildings of the Tri-Borough Bridge Project, Randalls Island, New York City. Tri-Borough Bridge Authority Engineers.

SALT GLAZED STRUCTURAL TILE

AN ECONOMICAL WALL SURFACE

This unique and attractive effect is produced by using Structural Salt Glazed Tile with face dimensions of 5 in. x 8 in. for the field, and Chocolate Brown Ceramic Glaze Sanitary Base, laid in soldier course fashion with continuous vertical jointing.

This departure from the conventional method of laying combines beauty with utility, and in the installation depicted above, reduced the cost of construction considerably in eliminating the necessity of special shapes for facing the radial walls.

Salt Glazed Units provide a permanent and sanitary

lining that will require no maintenance cost during the life of the building, and the initial cost is no greater than many other materials that do not have the same sanitary and structural qualities.

Salt Glazed Units have been approved by Building Departments and other Governmental Agencies for use as a fireproofing material around stair wells, columns and fire walls, and are, therefore, particularly adaptable to those locations where space is limited as the fireproofing material and the wall finish is combined in one inexpensive unit.



*Cafeteria of Thomas Mifflin School, Philadelphia, Pa.
Irwin T. Catherine, Supt. of Bldg., Phila. Bd. of Education.*

GLAZED AND UNGLAZED STRUCTURAL TILE FOR INTERIOR USE

The installation above is typical of many where Ceramic Glazed Structural Tile has been combined with Unglazed Facing Tile to produce a most satisfactory wall at a minimum of cost. Triple Size (5 in. x 12 in. Face) Ceramic Glazed units in a Brown and Cream Mottled tone have been used for the dado and form a pleasing contrast with the Buff unglazed units of the same size used above the dado.

The use of Unglazed facing tile above the dado effects a saving in construction costs, while the impervi-

ous surface of the Ceramic Glazed dado provides a durable and germ-proof surface in that part of the wall lining that is subjected to the most contact and abuse. Where funds are limited these two products can be used at a minimum of expense.

The use of 5 in. x 12 in. stretchers and only one stock shape for the bullnose finish of columns and external corners results in simplicity of design and economical construction, while the attractive color scheme produces an impressive artistic effect.



Actual installation of a Modern Filling Station.

CERAMIC GLAZED UNITS FOR FILLING STATIONS

ADVERTISING VALUE — SANITARY — PERMANENT

The advertising value of the artistic, permanent and sanitary appearance of Ceramic Glazed Structural Tile Units for filling stations is rapidly being appreciated by owners of such stations.

The appearance of a permanent, sanitary building creates a feeling in the minds of customers that they are dealing with a responsible distributor. This is not the case when stopping at a cheap, temporary station.

Resistant to oil and grease stains, the impervious water repellent Ceramic Glazed finish retains its original newness and beauty indefinitely. This factor makes it especially desirable for use on the surfaces of exterior and interior walls of filling stations.

The possibilities of a variety of designs and colors are

almost endless with Ceramic Glazed Structural Tile. The illustration above shows the use of 5 in. x 8 in. Ceramic Glazed Structural Tile with continuous vertical jointing as one of the unique possibilities.

Laying units with continuous vertical joints is only possible when the material has the high mechanical accuracy and quality such as is produced by the members of the Glazed Brick and Tile Institute. No loss of structural strength results from this method of construction when the interior is lined with Glazed Structural Tile.

Both interior Salt Glazed and Exterior Ceramic Glazed units are bonded together using alternating courses of 1¾ in. and 4 in. Structural Tile.



The photo above shows the pleasing results obtained by using this material as a wainscoting throughout the corridors of the Olinville Junior High School, Bronx, N. Y., designed by the New York City Board of Education.

CERAMIC GLAZED UNITS FOR WAINSCOTING

COLOR — NO MAINTENANCE COST — SANITARY

Ceramic Glazed Structural Tile Units with Face dimensions of 8 in. x 16 in. are now manufactured by certain members of the Glazed Brick and Tile Institute, and conform with the high standards of quality as established for the smaller sizes. This product is available in a wide variety of colors — in high gloss and matt finishes with a complete line of special shapes as illustrated in the following pages covering the smaller units.

The use of a smooth, glazed, sanitary surface is especially desirable in schools, hospitals and institutions for corridors and stair halls. The smooth, stain-proof surface is not defaced by chalk, pencil or ink markings and

abrasions such as are common in schools. All markings wash off with soap and water thus reducing maintenance costs. There is no annual painting bill with Glazed Tile Units.

The use of stock shapes, such as Sanitary Cove Base, Bullnose Cap and Bullnose Corners, combines with the smooth finish to produce a thoroughly sanitary surface.

The variegated mottled tone allows a more interesting treatment in the color scheme of a corridor. Light colors help to increase the light in long corridors by their light reflective qualities.



CERAMIC GLAZED STRUCTURAL TILE

A LOGICAL WALL SURFACE

Ceramic Glazed Structural Tile lends itself to almost every conceivable type of use in building construction. The use in a Board and Reading Room shows its unlimited adaptability for wall treatment as well as the advantages of this product for interior uses under many types of services.

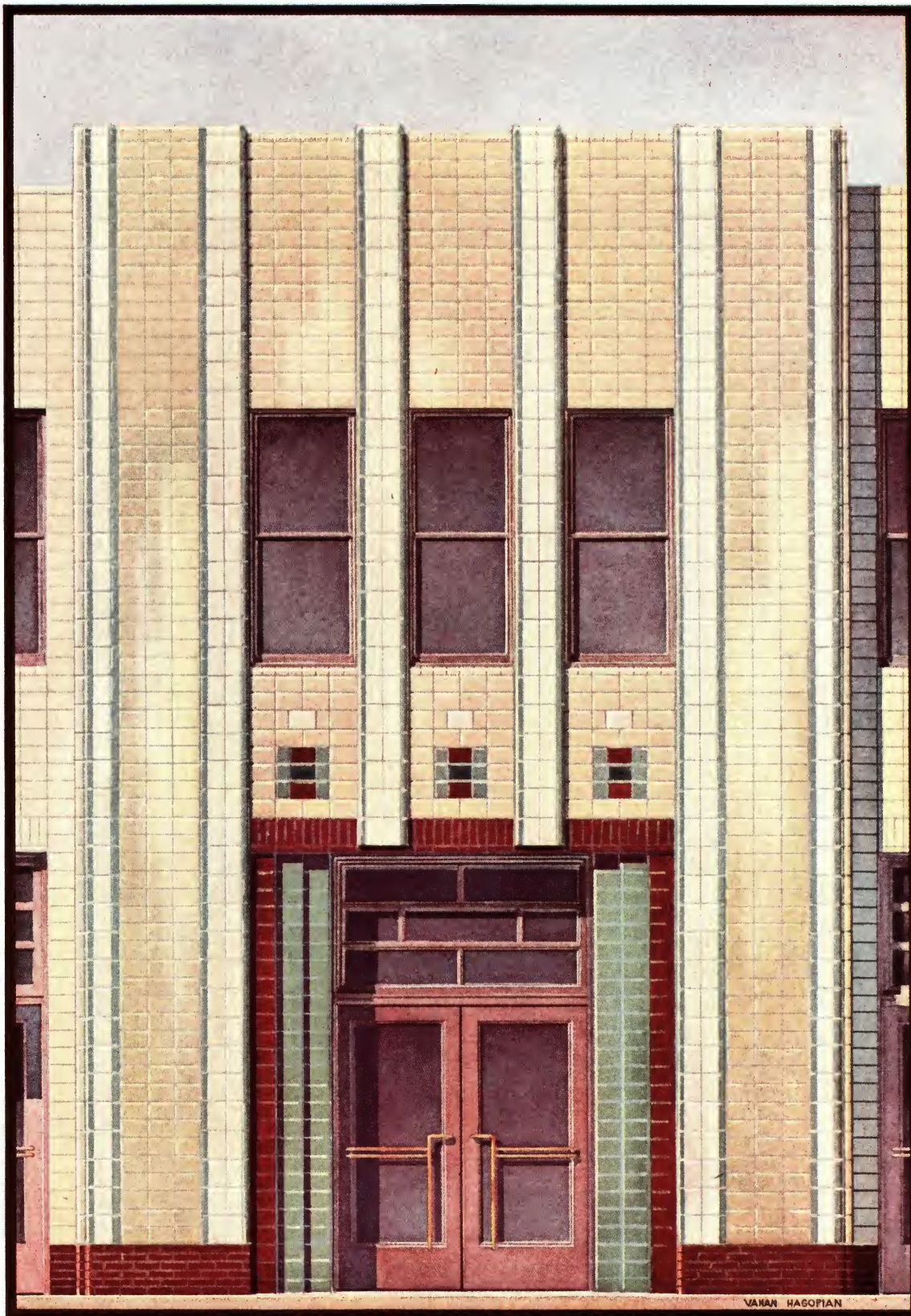
In the above interior the units used have face dimensions of 5 in. x 12 in. in a soft cream and brown mottled tone for the main body of the wall. There is a top border around the room of several courses of white tile to the ceiling. This unusual combination of color produces a pleasing subdued and restful effect from the floor to a point well above the eye-level. The general light, warm tone of the tile does not distract the attention of the readers. The top courses of pure white tile add to the utilitarian advantages of greater light reflection at a point where it is most effective.

Used as an integral part of bearing and partition walls, Ceramic Glazed Structural Tile can never become dislodged due to vibration or settling of the walls.

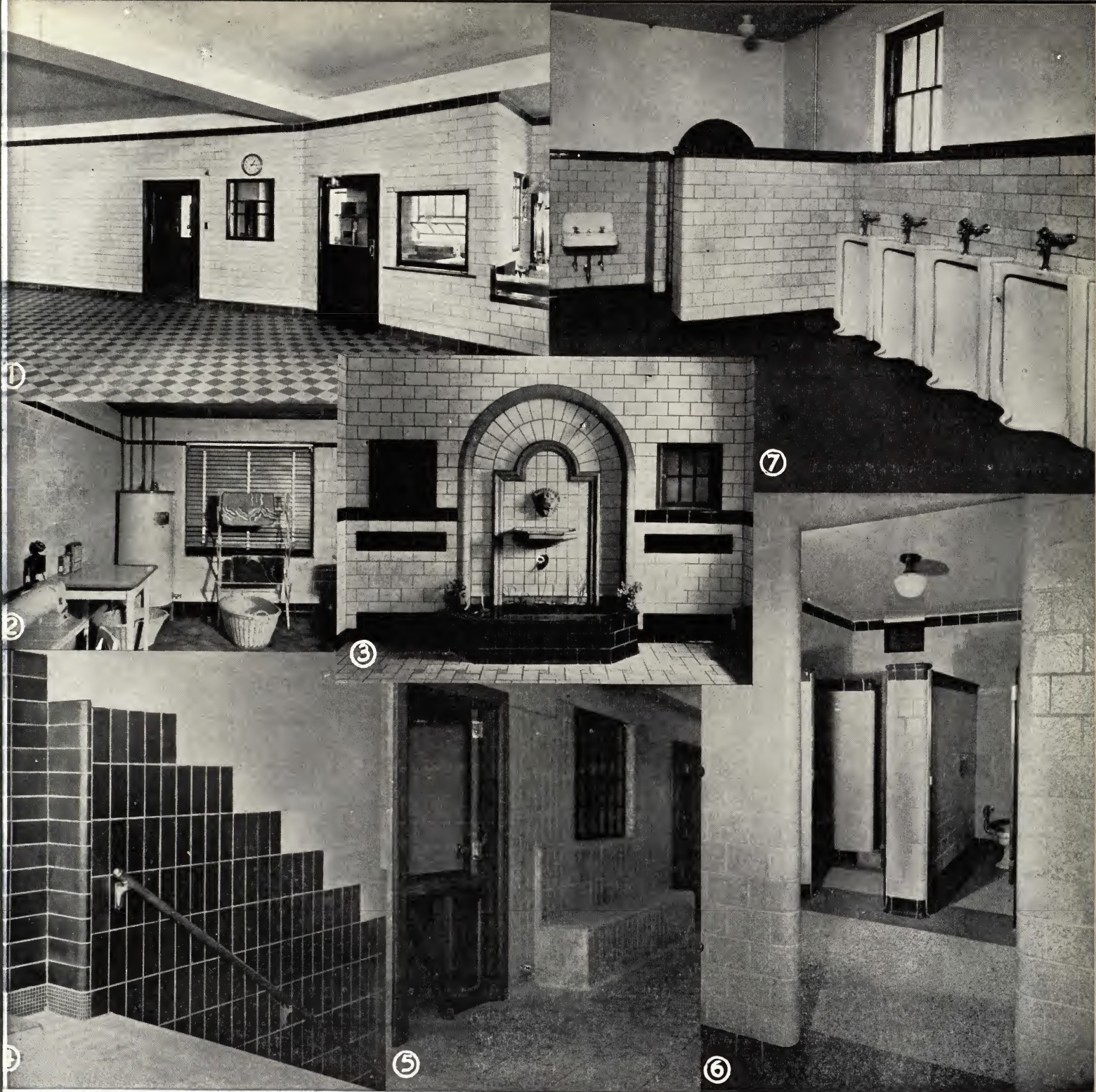
There is no maintenance cost with this type of bearing construction tile such as is sometimes experienced with various other materials which require periodical replacements or re-conditioning.

The available colors in plain or mottled glazed effects, which are now produced, afford the designer almost unlimited possibilities, as to interior treatments and color schemes. The colors are permanent and require only a periodical dusting or washing with plain soap and water at long intervals. The walls are then restored to their fresh and original brightness.

As they are structural units they count as part of the bearing walls and do not have to be added to it at additional expense as is required for most other finishes.



An original study showing the unusual decorative, as well as structural, possibilities in Ceramic Glazed Brick and Structural Tile for a complete facade. The design shows the combination of conventional brick size with standard 5 in. x 8 in. units and bullnose shapes. The effect of continuous vertical jointing and variety of pleasing colors offers almost limitless possibilities for the Architect in structural enrichment.



1. Interior of kitchen.

2. Facing of private laundry.

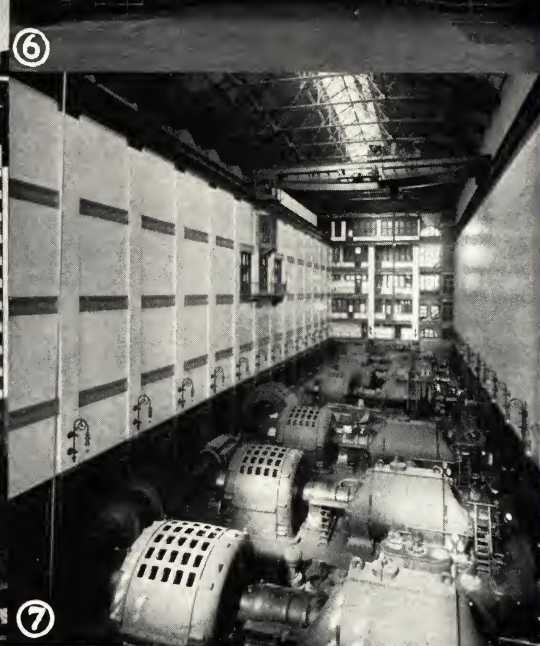
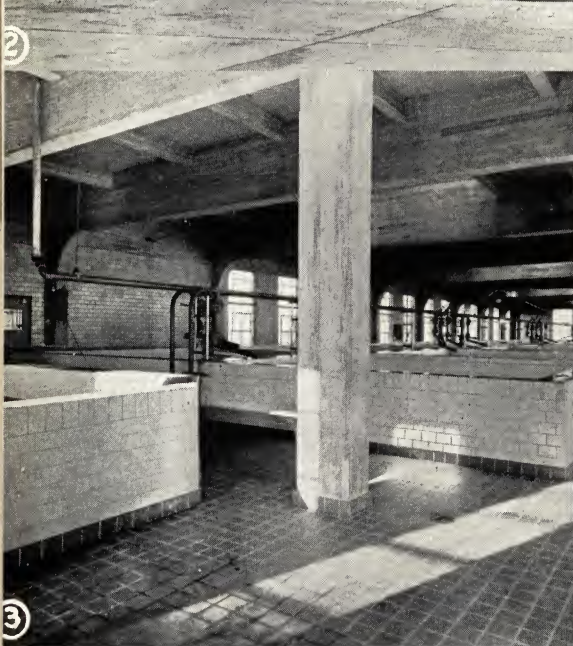
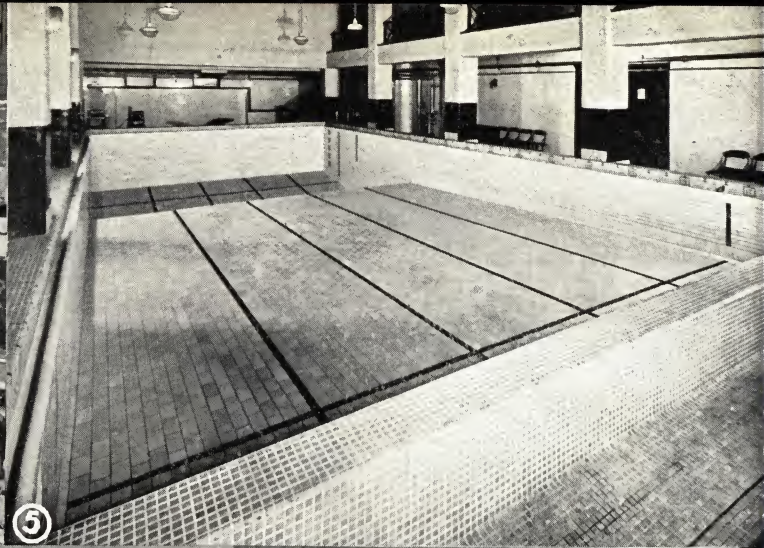
3. Foyer—floor, walls and fountain.

4. Wainscot and side walls of stair hall.

5. Wainscot and seat of corridor.

6. Walls and partitions of lavatory.

7. Wainscoting and dwarf partition of comfort station.



1. Store interior—walls.

2. Exterior treatment of service station.

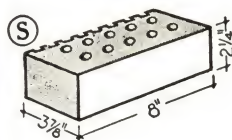
3. Distillery interior—walls and storage vat facings.

4. Office buildings—entire exterior facing, including black glazed brick spandrels.

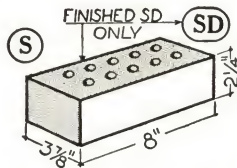
5. Interior lining of side walls of swimming pool room, and walls and bottom of swimming pool.

6. Exterior of store front including black glazed bulkheads.

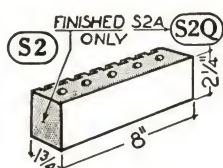
7. Walls and wainscot of power house.



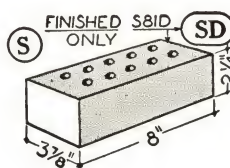
S Stretcher
SI Same, 4" Length



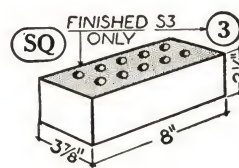
SSm Stretcher Smooth Back
SD Two Face Stretcher



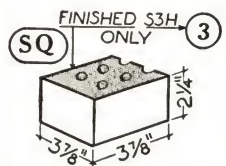
SA Soap Stretcher
S2A Soap Quoin (2" Ret.)



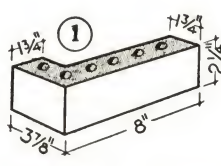
S81 Header
S81D Two Face Header



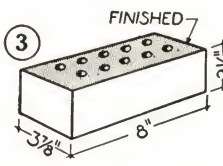
S2 Quoin
S2H Same, 4" Length
S3 Quoin End



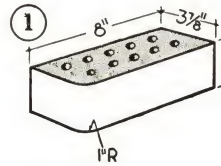
S2H Quoin, 4" Length
S3H Quoin end, 4" Length



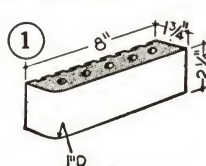
S2B Soap Bond Quoin
(4" Return)



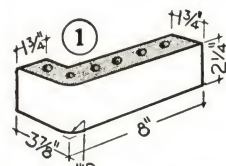
S83H 8" Quoin End, 4" Length
(Double Quoin)



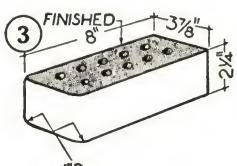
S4 Bullnose
S4H Same, 4" Length



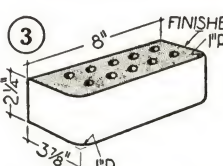
S4A Soap Bullnose
(2" Return)



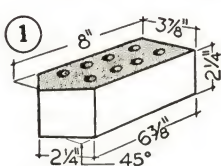
S4B Soap Bond Bullnose,
(4" Return)



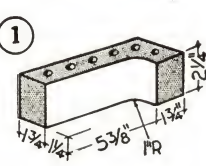
S5 Bullnose End
S5H Same, 4" Length



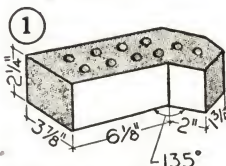
S85H 8" Bullnose End,
4" Length (Double Bn.)



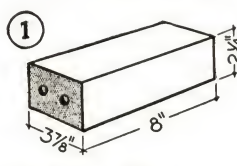
S6 Octagon
S6A Soap Octagon



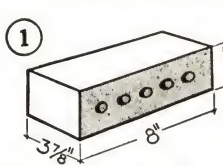
S8 Internal Bullnose



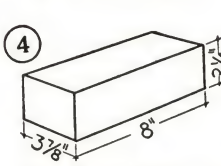
S9 Internal Octagon
S9A Soap Internal Oct.



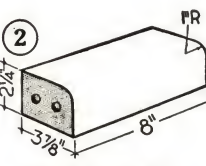
S10 Square Sill
S11 Same, 4" Length



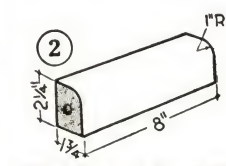
S811 8" Square Sill, 4" Length
(Square Sill Header)



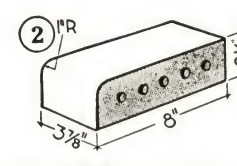
S12R Square Sill Quoin Rt.
S12H Same, 4" Length



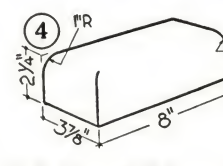
S20 Bullnose Sill
S21 Same, 4" Length



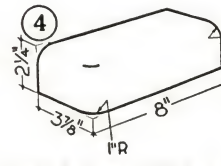
S20A Soap Bullnose Sill
(2" Reveal)



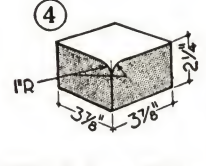
S821 8" Bullnose Sill,
4" Length (Bn. Sill Hdr.)



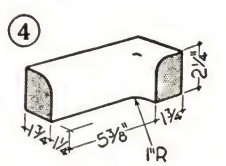
S22R Bullnose Sill Quoin, Rt.
S22H Same, 4" Length



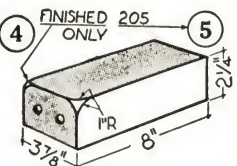
S24R Bullnose Sill Bn. Rt.
S24H Same, 4" Length



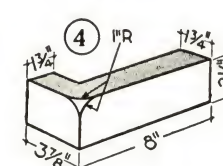
S27H Bullnose Sill In-
ternal Square Corner



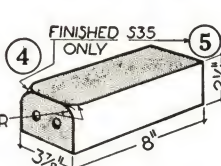
S28L Bullnose Sill In-
ternal Bullnose, Left
S28H Same, Half Length



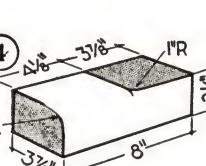
S204R Bullnose Starter, Rt.
S214R Same, 4" Length
S205 Bn. Coping Starter



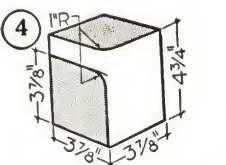
S204BR Soap Bullnose
Starter, 4" Return, Rt.
S204AR Same, 2" Ret.



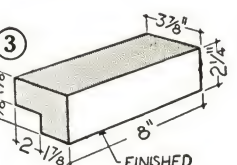
S34R Bullnose Mitre, Rt.
S34HR Same, 4" Length
S34AR Soap Bn. Mitre, Rt.
S35 Bullnose Coping Mitre



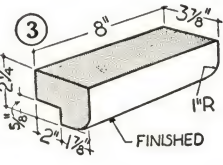
S34JR Bullnose Sill and
Jamb Mitre, Right



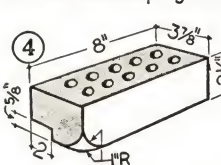
FS34R Rowlock Bullnose
Sill Mitre 4" Length



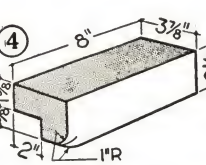
S710 Square Lintel



S720 Bullnose Lintel



S704R Bullnose Lintel
Starter, Right

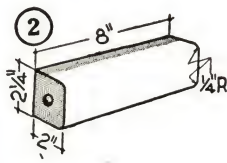


S734R Bullnose Lintel
Mitre, Right

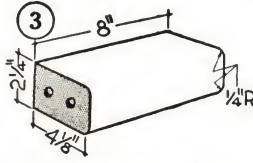
See Accompanying Notes for Explanation of Class Symbols (S), Shape Numbers, Scoring and Coring, Finished Faces, Fractional Lengths, Quoins, Returns, Reveals, Variants, Tolerances and Other Explanatory Notes.

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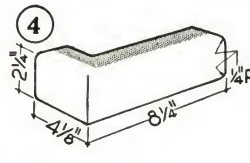
"S" SERIES CAP MOULDING



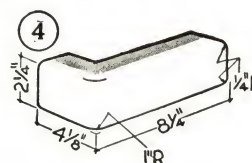
S40 Cap Stretcher



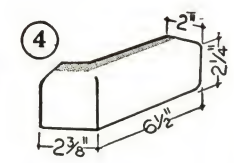
S40M Cap Stretcher, 4" Rev.
S41M Same, 4" Length



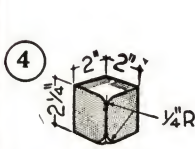
S42 Cap Quoin
S42H Same, 4" Length



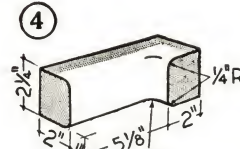
S44 Cap Bullnose
S44H Same, 4" Length



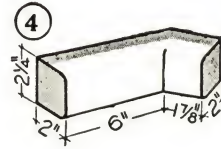
S46 Cap Octagon



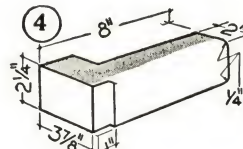
S47H Cap Internal
Square Corner



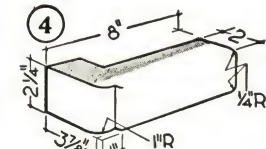
S48 Cap Internal Bullnose
S48H Same, Half Length



S49 Cap Int. Octagon



S402 Cap Starter Quoin
S402A Same, Soap, 2" Ret.

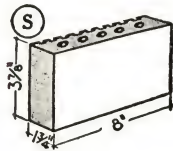


S404 Cap Starter Bullnose
S404A Same, Soap 2" Ret.

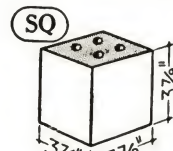
1 1/2 BRICK EQUIVALENT UNITS

"F" SERIES—3 7/8" x 8" FACE

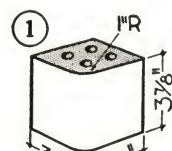
USED AS ROWLOCK OR SOLDIER UNITS WITH "S" SERIES



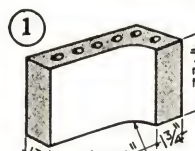
FA Soap Flatter



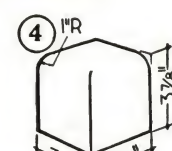
F2H Quoin, 4" Length



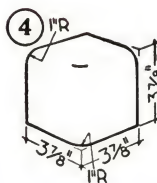
F4H Bullnose, 4" Length



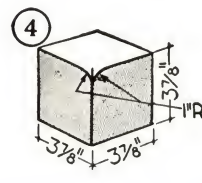
F8 Internal Bullnose
F8H Same, Half Length



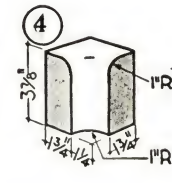
F22H Bullnose Sill
Quoin, 4" Length



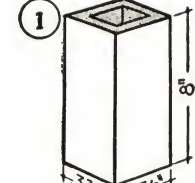
F24H Bullnose Sill
Bullnose, 4" Length



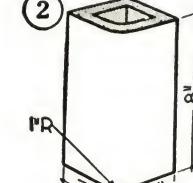
F27H Bullnose Sill Internal
Square Corner



F28H Bullnose Sill Internal
Bullnose, Half Length



F10 Square Rowlock Sill
(also Soldier Quoin)



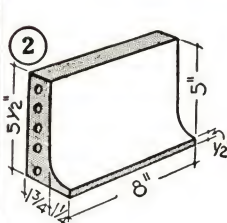
F20 Bullnose Rowlock Sill
(also Soldier Ext. Bn.)

2 BRICK EQUIVALENT UNITS

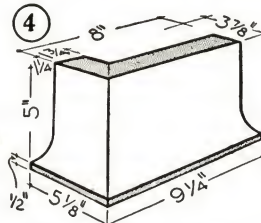
"D" SERIES—5" x 8" FACE

COVE BASE

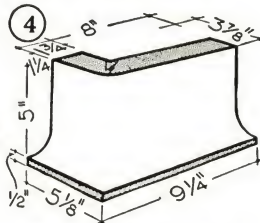
COVE BASE UNITS ARE NOT MADE IN "S" SERIES



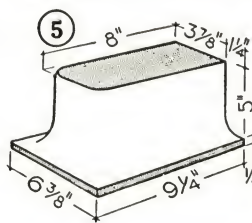
D50 Cove Stretcher



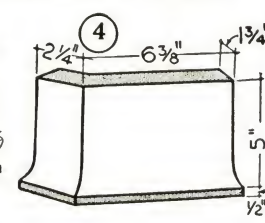
D52R Cove Quoin, Right
D52H Same, 4" Length
D52AR Same, Soap, 2" Ret.



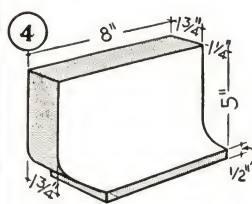
D54R Cove Bullnose, Rt.
D54H Same, 4" Length
D54AR Same, Soap, 2" Ret.



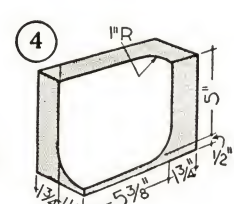
D55 Cove Bullnose End
D55H Same, 4" Length



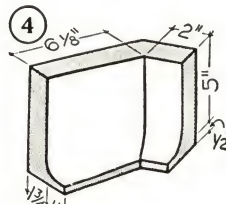
D56R Cove Octagon, Right



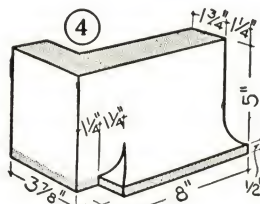
D57R Cove Internal
Coped, Right



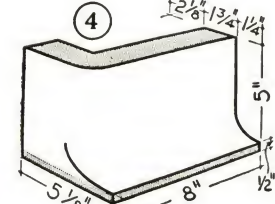
D58L Cove Internal
Bullnose, Left



D59L Cove Internal
Octagon, Left



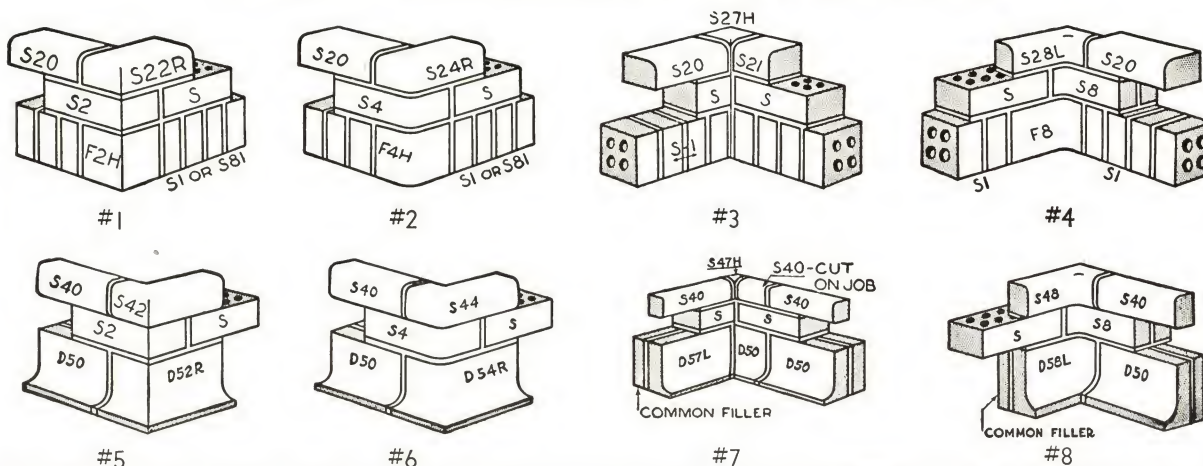
D502R Cove Starter Quoin Rt.
D502AR Same, Soap thickness



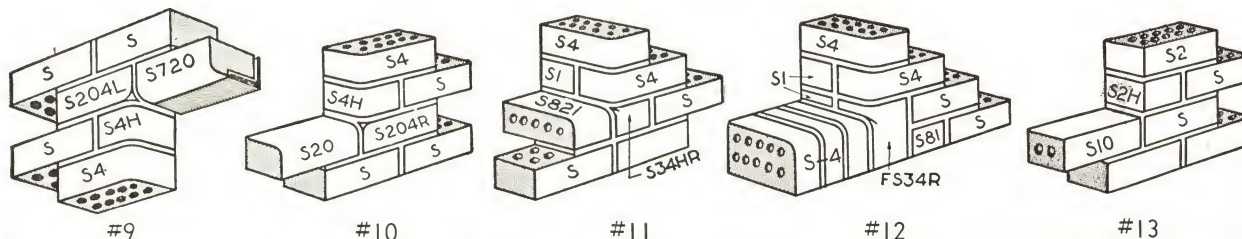
D504R Cove Starter Bullnose Rt.
D504AR Same, Soap

STRUCTURAL DETAILS—CORNERS—Refer to details by numbers.

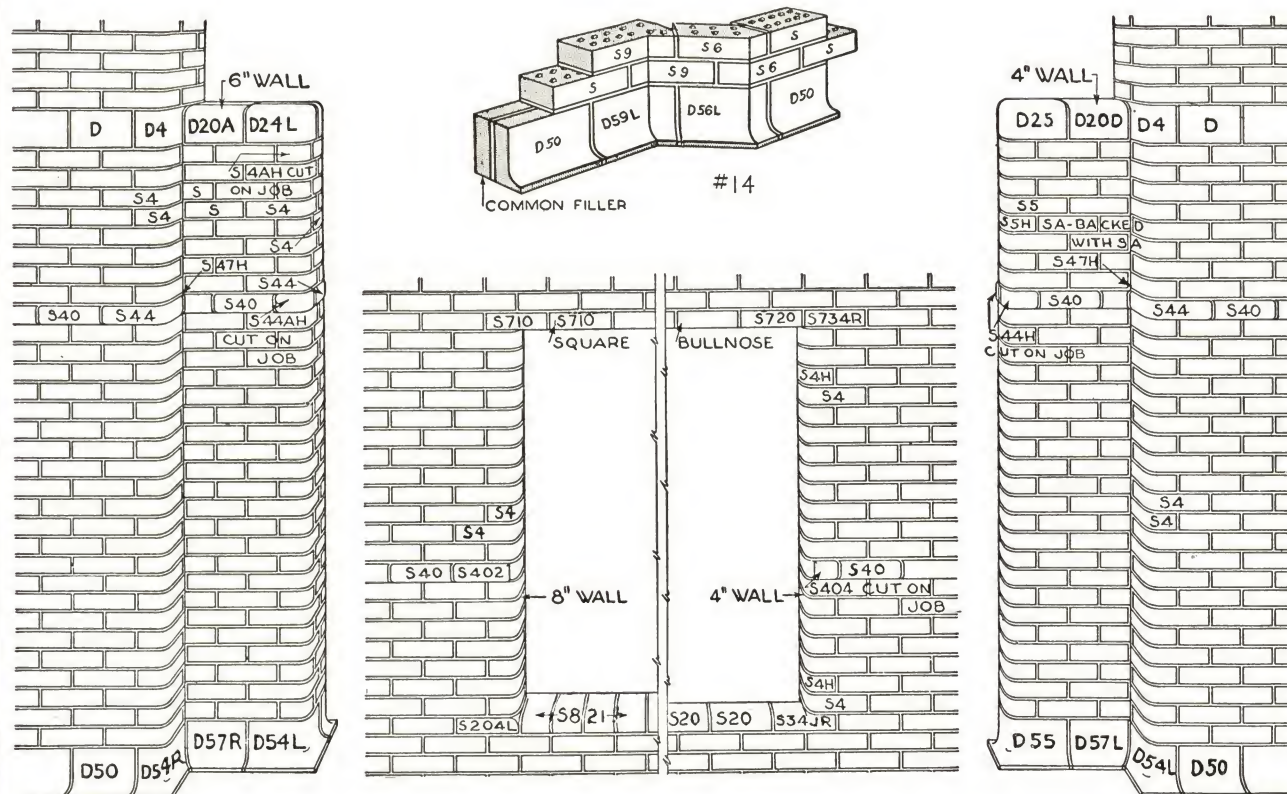
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LINTELS—SILLS

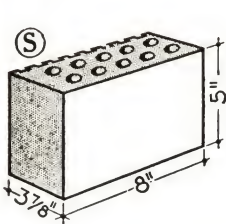


OCTAGONS

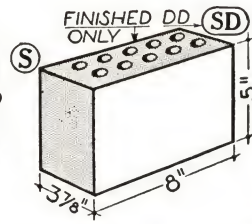


See Accompanying Notes for Explanation of Class Symbols (S), Shape Numbers, Scoring and Coring, Finished Faces, Fractional Lengths, Quoins, Returns, Reveals, Variants, Tolerances and Other Explanatory Notes.

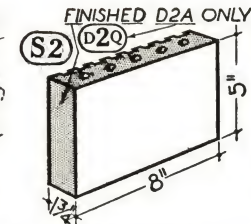
4
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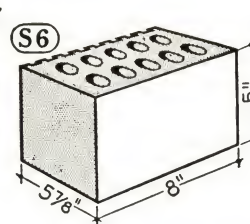
D Stretcher.
DI Same, 4" Length.
FINISHED D8ID ONLY



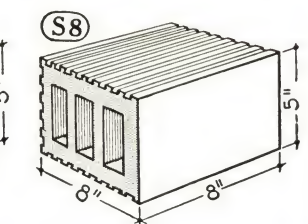
DSm Stretcher, Smooth Back
DD Two Face Stretcher.
KERFED FOR SPLITTING 2" x 2"



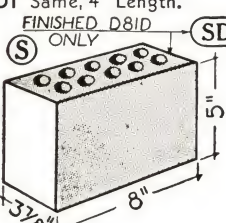
DA Soap Stretcher.
D2A Soap Quoin (2" Ret.).
FINISHED D3 ONLY



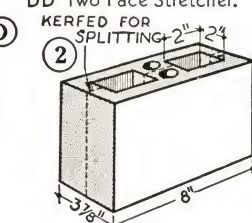
D60 6" Bonding Stretcher.



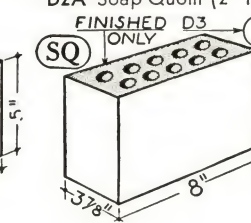
D80 8" Bonding Stretcher.



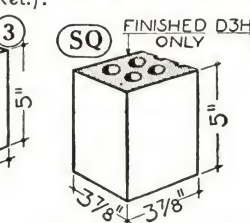
D81 Header.
D81D Two Face Header.



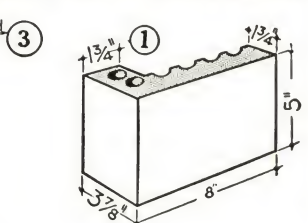
DV Kerfed Conduit Stretcher.



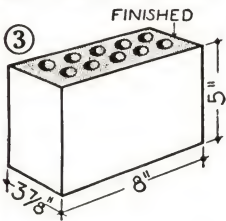
D2 Quoin.
D3 Quoin End.



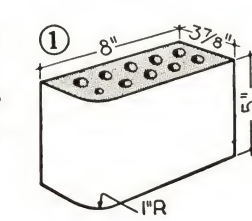
D2H Quoin, 4" Length.
D3H Quoin End, 4" Length.



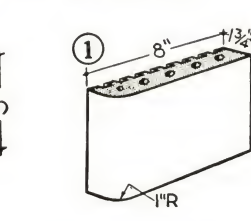
D2B Soap Quoin, 4" Ret.



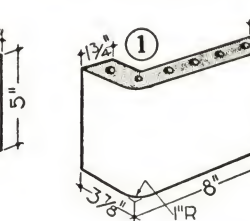
D83H 8" Quoin End, 4" Length. (Double Quoin).



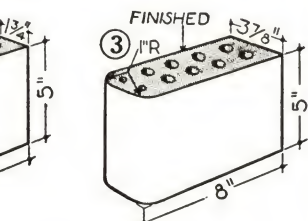
D4 Bullnose.
D4H Same, 4" Length.



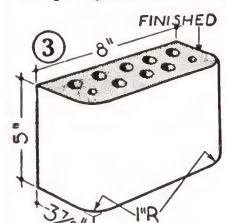
D4A Soap Bullnose (2" Ret.)



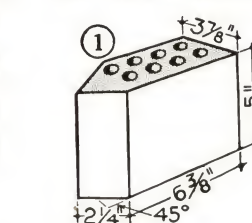
D4B Soap Bullnose, 4" Ret.



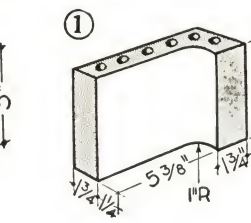
D5 Bullnose End.
D5H Same, 4" Length.



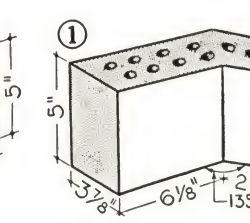
D85H 8" Bullnose End, 4" Length (Double Bullnose)



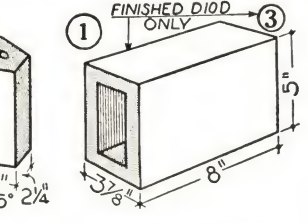
D6 Octagon
D6A Soap, Octagon.



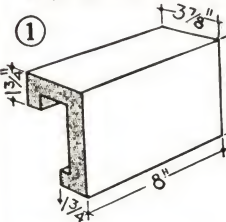
D8 Internal Bullnose.



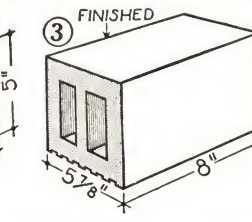
D9 Internal Octagon.
D9A Soap Internal Octagon.



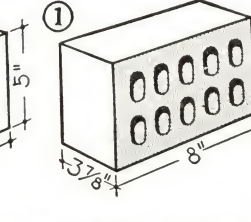
D10 Square Sill.
D11 Same, 4" Length.
D10D Square Coping.



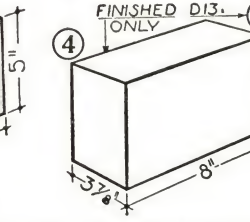
D10B Soap Square Sill
4" Reveal.



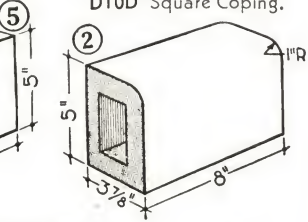
D610D 6" Square Coping.
(Also 6" Lintel)



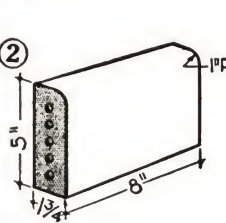
D81I 8" Square Sill, 4" Length
DF Flat Stretcher, Head Not Finished.



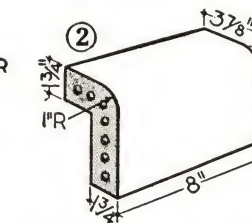
D12R Square Sill Quoin, Rt.
D13 Square Coping End.
D13H Same, 4" Length.



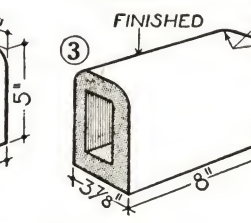
D20 Bullnose Sill.
D21 Same, 4" Length.



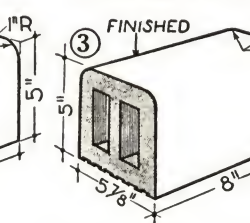
D20A Soap Bullnose Sill.
(2" Reveal.)



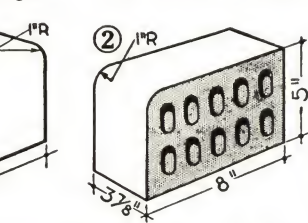
D20B Soap Bullnose, 4" Rev.
D21B Same, 4" Length.



D20D Bullnose Coping.
D21D Same, 4" Length.

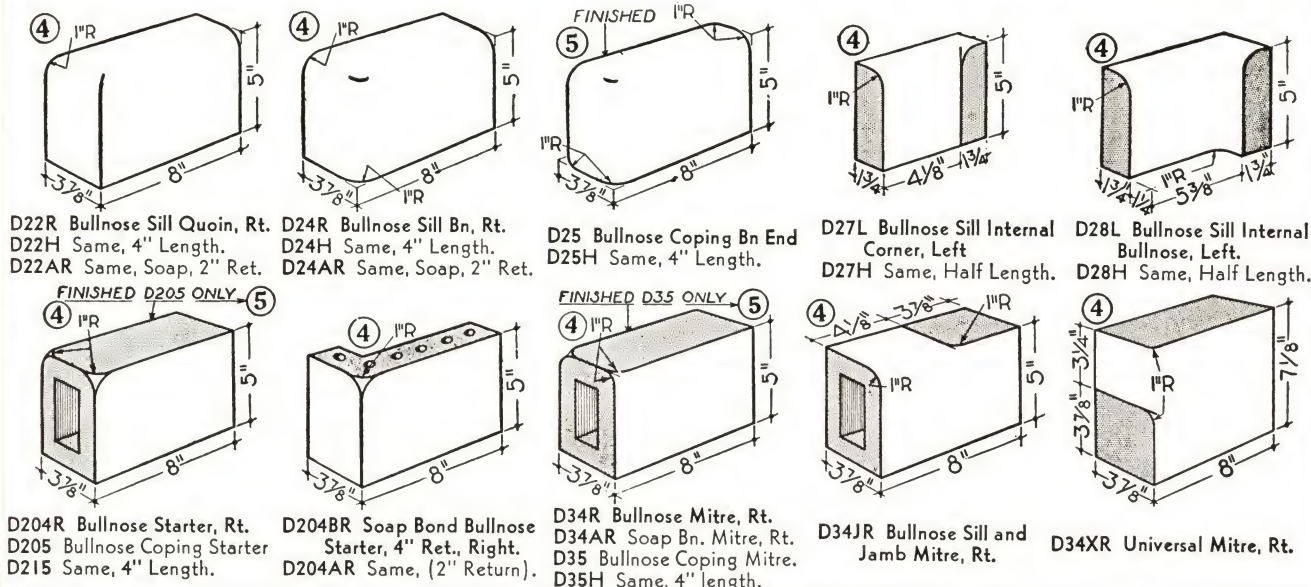


D620D 6" Bullnose Coping.
(Also 6" Bullnose Lintel.)

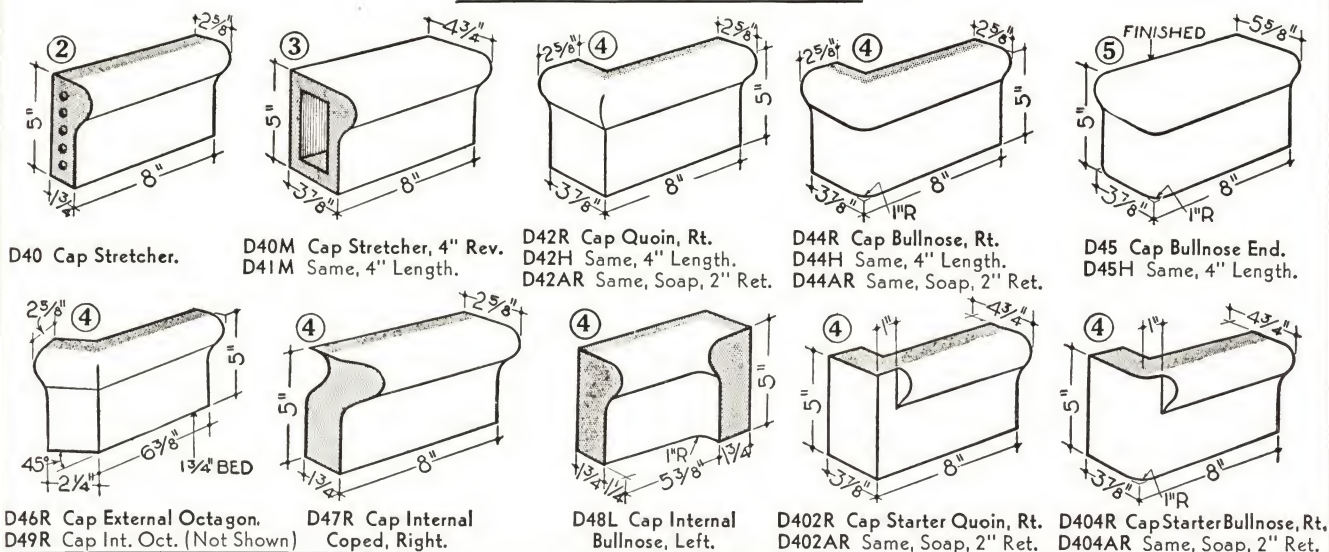


D82I 8" Bullnose Sill, 4" Length. (Bullnose Header).

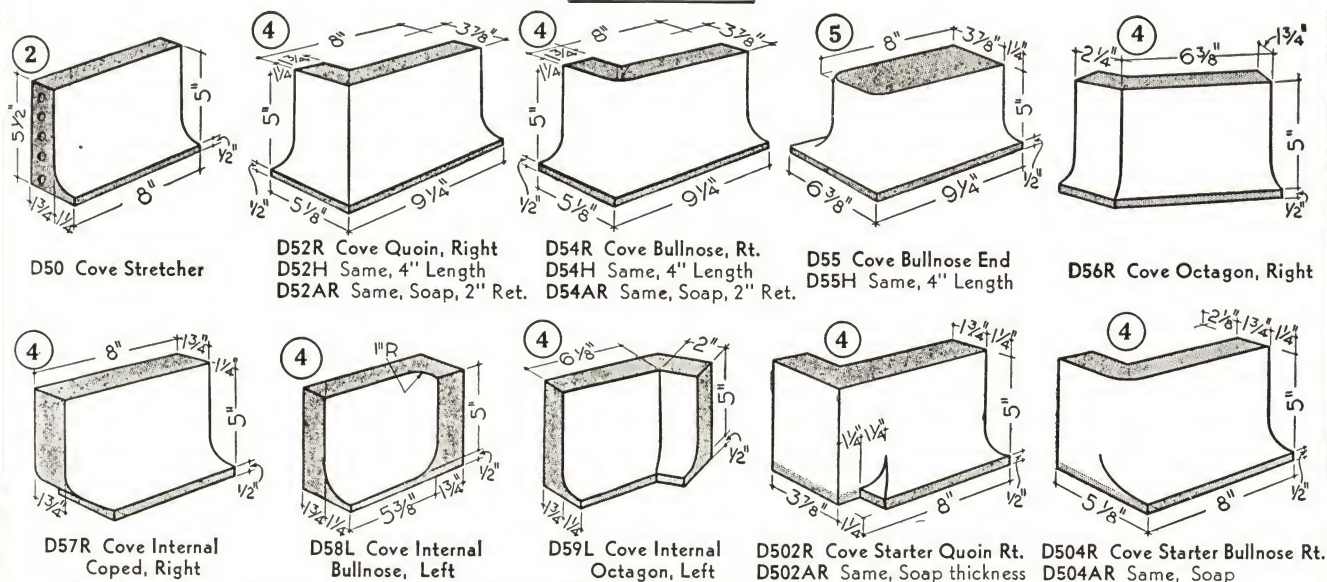
See Accompanying Notes for Explanation of Class Symbols (S), Shape Numbers, Scoring and Coring, Finished Faces, Fractional Lengths, Quoins, Returns, Reveals, Variants, Tolerances and Other Explanatory Notes.



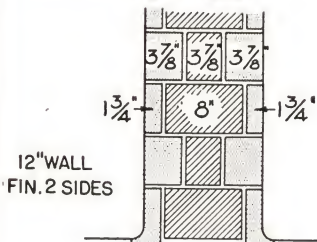
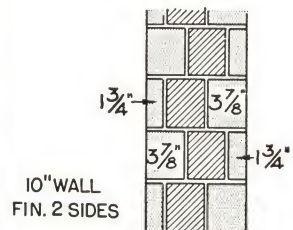
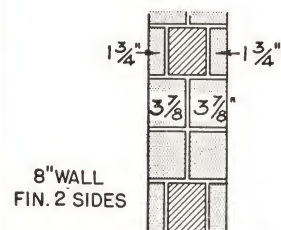
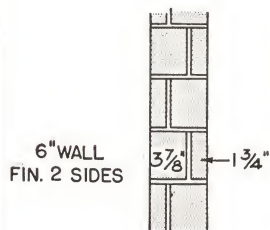
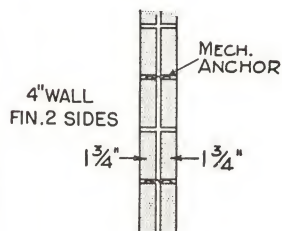
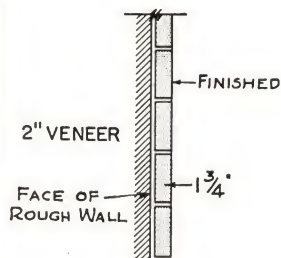
"D" SERIES CAP MOULDING



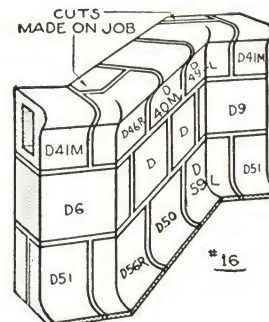
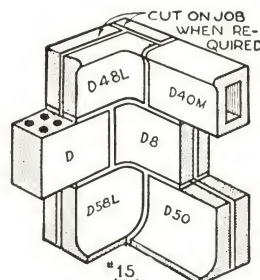
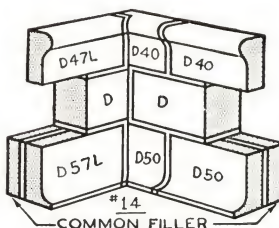
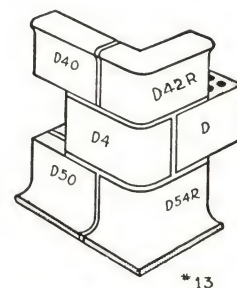
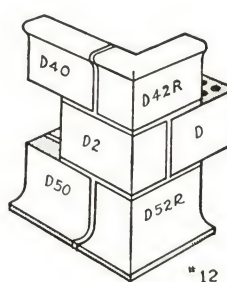
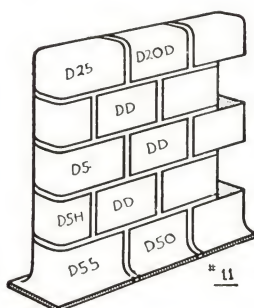
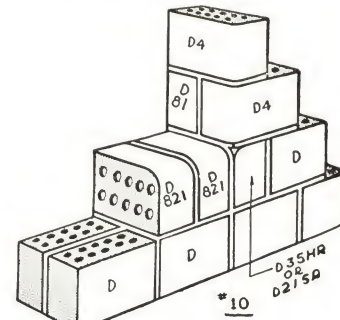
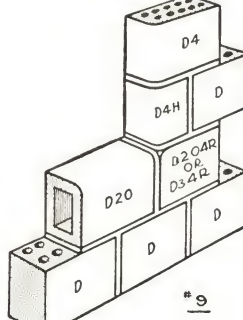
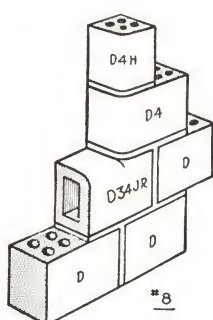
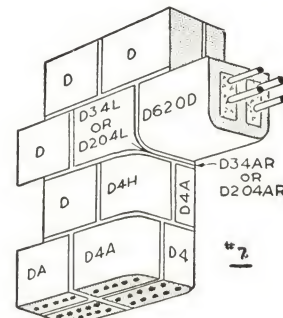
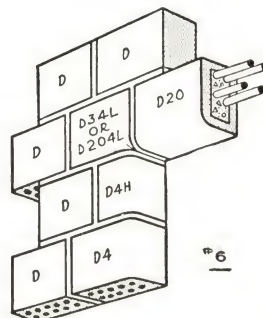
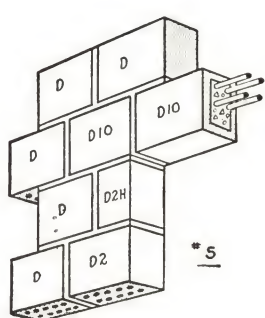
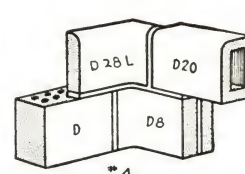
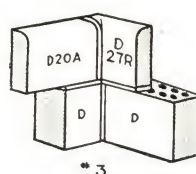
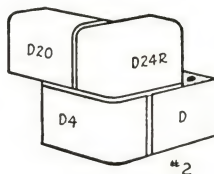
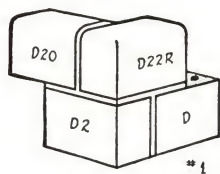
COVE BASE

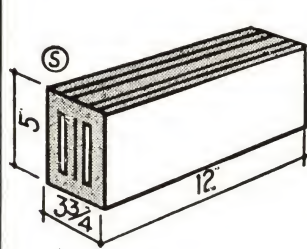


STRUCTURAL DETAILS—Refer to details by numbers

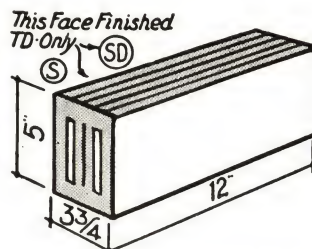


WALL SECTIONS
SHOWING BONDING

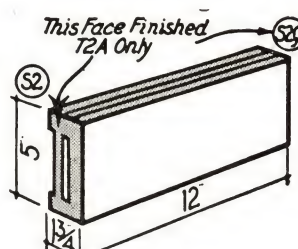




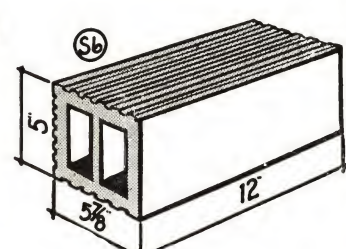
T Stretcher
TI Stretcher 6" Length



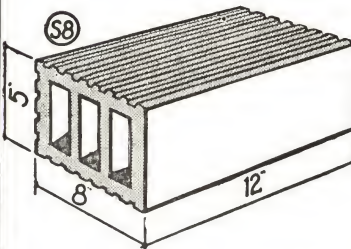
TSm Stretcher Smooth Back
TD Two Face Stretcher
TID Two Face, 6" Length



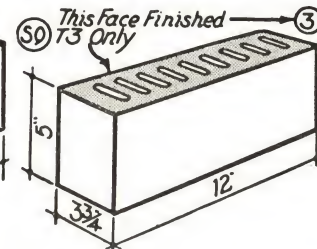
TA Soap Stretcher
T2A Soap Quoin 2" Return
T2AH, Same 6" Length



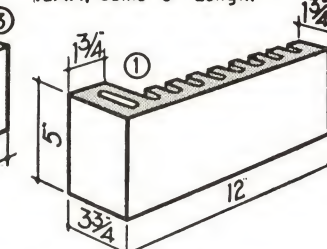
T60 6" Bonding Stretcher
T6L Same, 6" Length



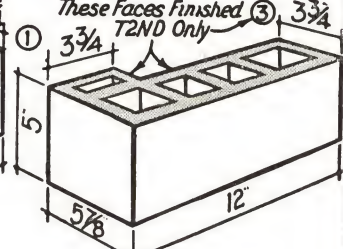
T80 8" Bonding Stretcher
T8L Same, 6" Length



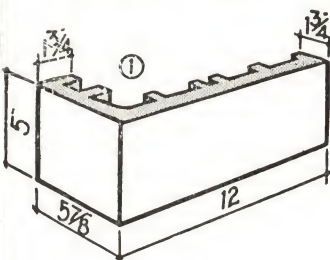
T2 Quoin
T2H Same, 6" Length
T3 Quoin End
T3H Same, 6" Length



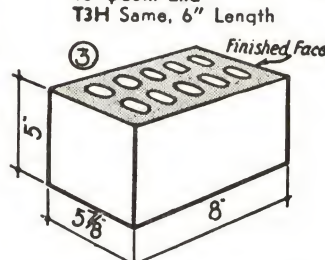
T28 Soap Bond Quoin 4" Return
T28H Same 6" Length



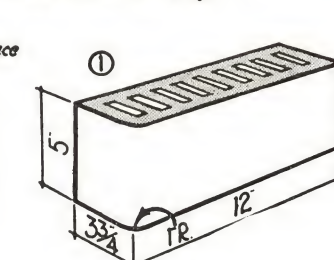
T2N Bond Quoin 6" Return
T2ND Same Two Face



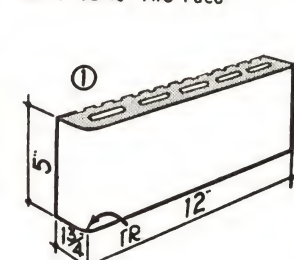
T2E Soap Bond Quoin 6" Return
T2EH Same, 6" Length



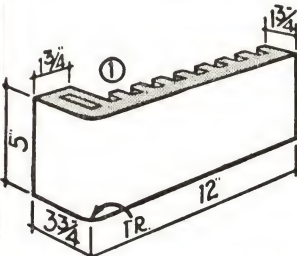
T83H 8" Quoin End 6" Length
(Double Quoin)



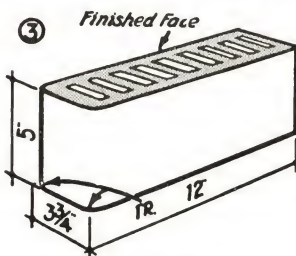
T4 Bullnose
T4H Same, 6" Length



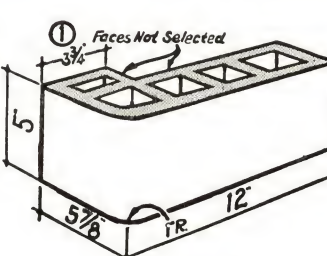
T4A Soap Bullnose 2" Return
T4AH Same, 6" Length



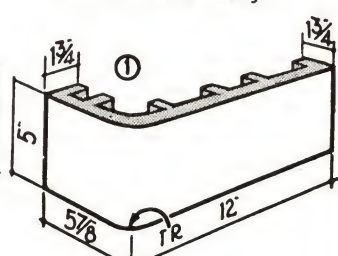
T48 Soap Bond Bullnose 4" Return
T48H Same, 6" Length



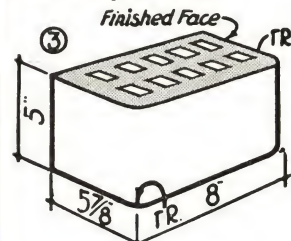
T5 Bullnose End
T5H Same, 6" Length



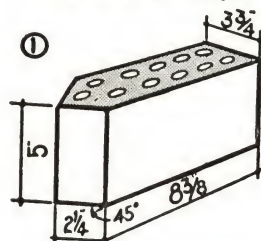
T4N Bond Bullnose
6" Return



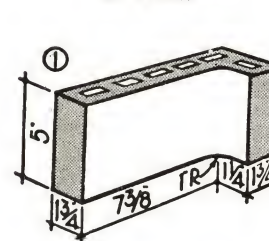
T4E Soap Bond Bullnose
6" Return
T4EH Same, 6" Length.



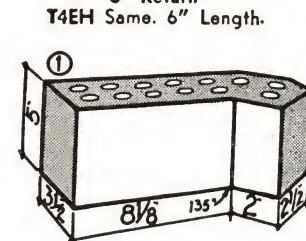
T85H 8" Bullnose End 6" Length
(Double Bullnose)



T6 External Octagon
T6A Same, Soap



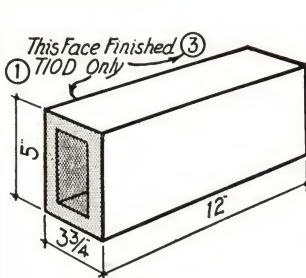
T8 Internal Bullnose



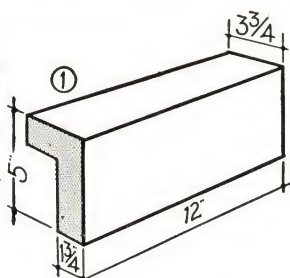
T9 Internal Octagon
T9A Same, Soap

See Accompanying Notes for Explanation of Class Symbols, Shape Numbers, Scoring and Coring, Finished Faces, Fractional Lengths, Quoins, Returns, Reveals, Variants, Tolerances and Other Explanatory Notes.

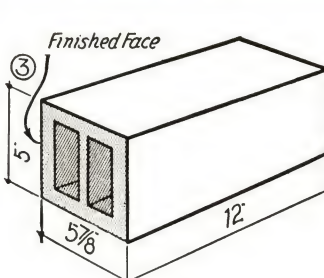
4
38



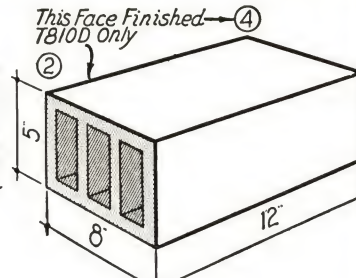
T10 Square Sill
T11 Same, 6" Length
T10D Square Copping



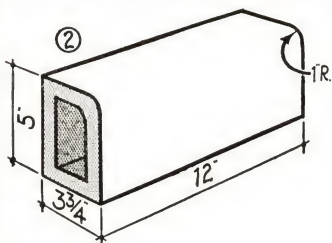
T10B Soap Square Sill
T11B Same, 6" Length



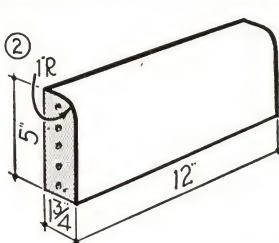
T610D 6" Square Copping
T611D Same, 6" Length



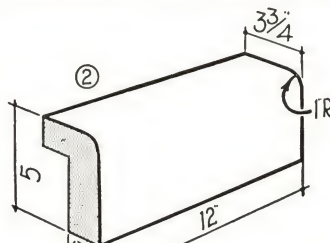
T810 8" Square Sill
T811 Same, 6" Length
T810D 8" Square Copping



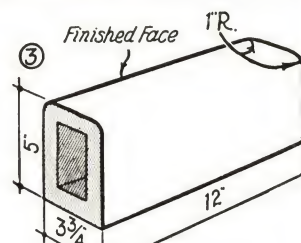
T20 Bullnose Sill
T21 Same, 6" Length



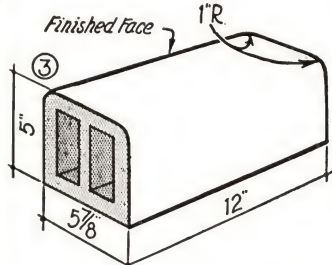
T20A Soap Bn. Sill 2" Reveal
T21A Same, Soap 6" Length



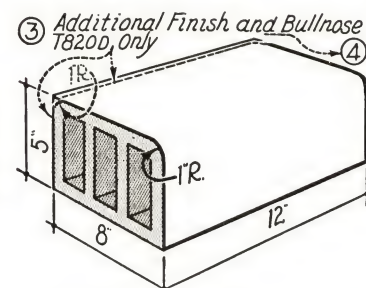
T20B Soap Bn. Sill 4" Reveal
T21B Same, 6" Length



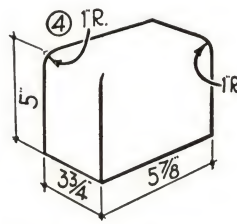
T20D Bullnose Copping
T21D Same, 6" Length



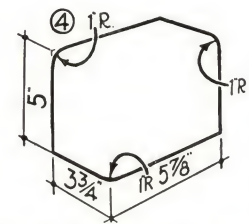
T620D 6" Bullnose Copping
T621D Same, 6" Length



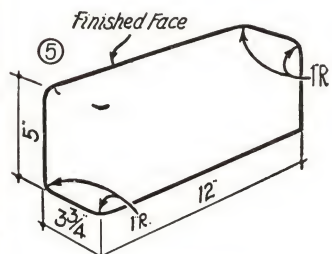
T820 8" Bullnose Sill
T821 Same, 6" Length
T820D 8" Bullnose Copping



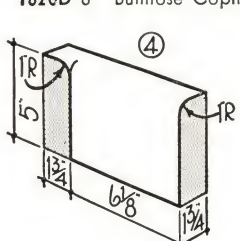
T22R Bn. Sill Quoin Right
T22AR Same, Soap 2" Return



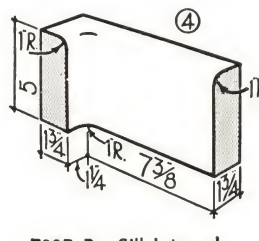
T24R Bn. Sill Bullnose Right
T24AR Same, Soap 2" Return



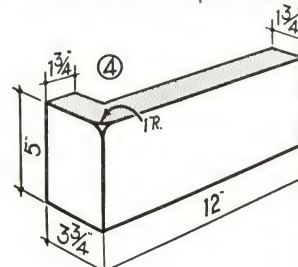
T25 Bn. Sill Bullnose End
T25H Same, 6" Length



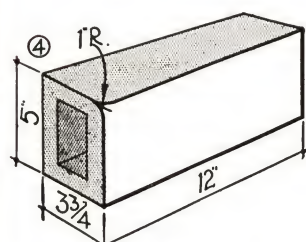
T27R Bn. Sill Internal Square Right



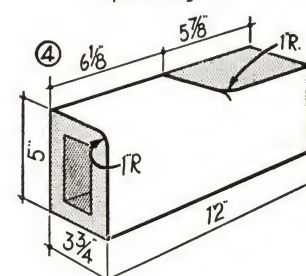
T28R Bn. Sill Internal Bullnose Right



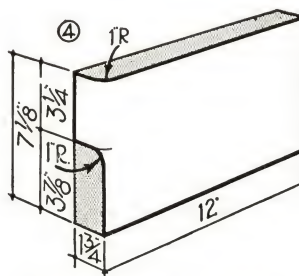
T204BR Soap Bn. Starter 4" Return Right
T204AR Same, 2" Return
Finished Face



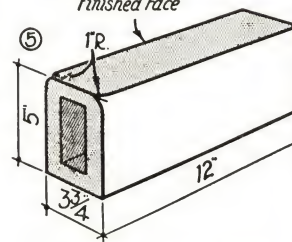
T34R Bullnose Mitre Right
T34AR Same Soap



T34JR Bullnose Sill & Jamb Mitre Right

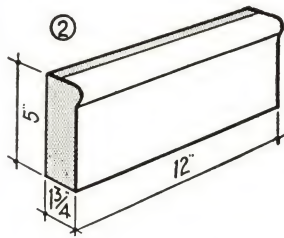


T34XR Bullnose Universal Mitre Right

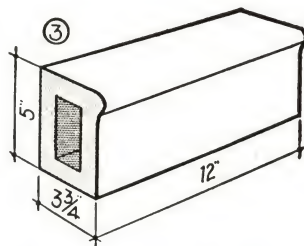


T35 Bullnose Copping Mitre
T35H Same, 6" Length

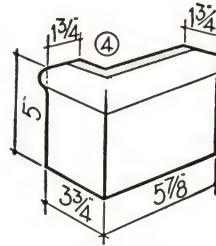
See Accompanying Notes for Explanation of Class Symbols, Shape Numbers, Scoring and Coring, Finished Faces, Fractional Lengths, Quoins, Returns, Reveals, Variants, Tolerances and Other Explanatory Notes.



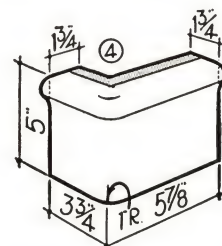
T40 Cap Stretcher 2" Reveal
T41 Same, 6" Length



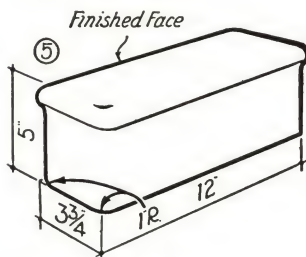
T40M Cap Stretcher 4" Reveal
T41M Same, 6" Length



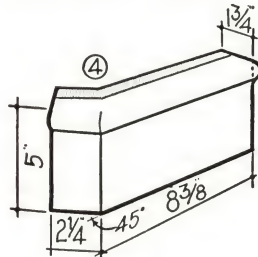
T42R Cap Quoin Right
T42AR Same, Soap 2"-Return



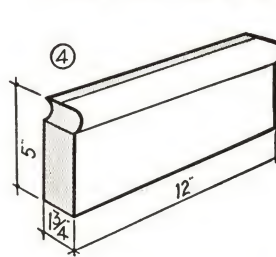
T44R Cap Bullnose Right
T44AR Same, Soap 2" Return



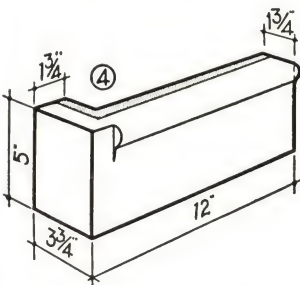
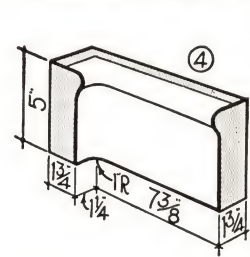
T45 Cap Bullnose End
T45H Same, 6" Length



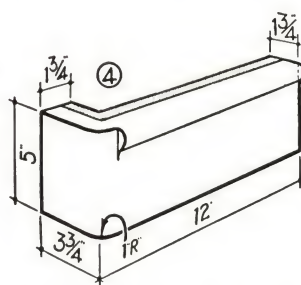
T46R Cap External Octagon Rt.
T49R Same Internal (Not Shown)



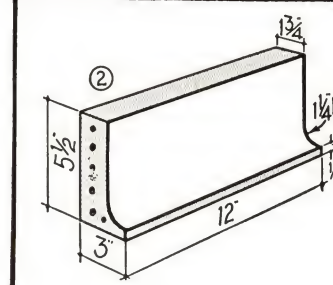
T47R Cap Internal Coped Right T48R Cap Int. Bullnose Right



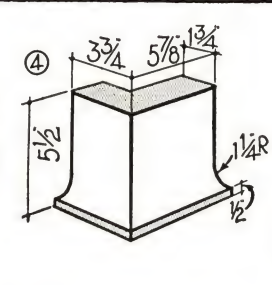
T402R Cap Starter Quoin Rt.
T402AR Same, Soap 2" Return



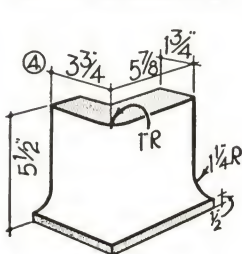
T404R Cap Starter Bullnose Rt.
T404AR Same, Soap 2" Return



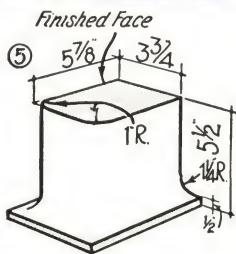
T50 Cove Stretcher
T51 Same, 6" Length



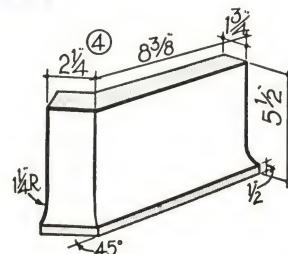
T52R Cove Quoin Right
T52AR Same, Soap 2" Return



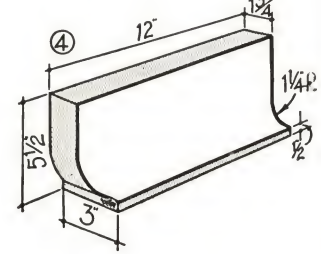
T54R Cove Bullnose Right
T54AR Same, Soap 2" Return



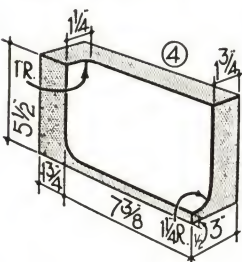
T55H Cove Bullnose End
6" Length



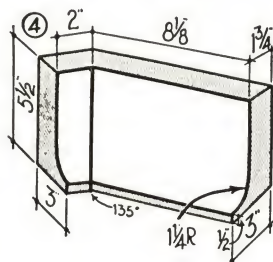
T56R Cove External Octagon Right



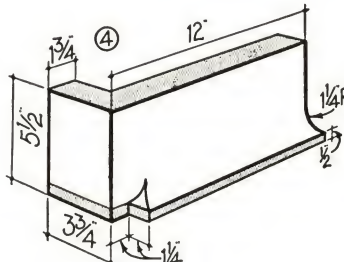
T57R Cove Internal Coped
Right



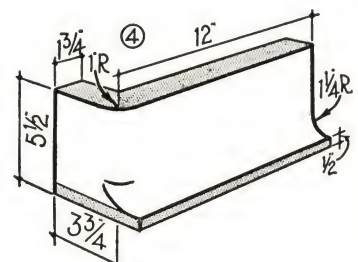
T58R Cove Internal Bullnose
Right



T59R Cove Internal Octagon
Right



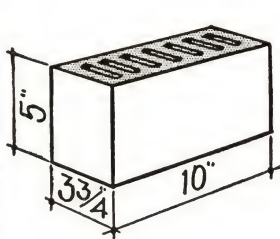
T502R Cove Starter Quoin Rt.
T502AR Same, Soap 2" Return



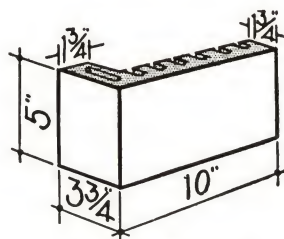
T504R Cove Starter Bullnose Rt.
T504AR Same, Soap 2" Return

See Accompanying Notes for Explanation of Class Symbols Shape Numbers, Scoring and Coring, Finished Faces, Fractional Lengths, Quoins, Returns, Reveals, Variants, Tolerances and Other Explanatory Notes.

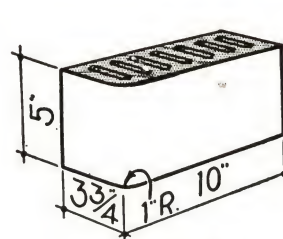
4
38



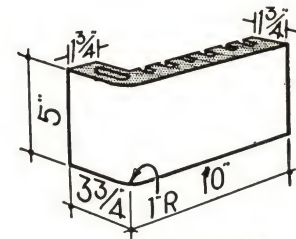
G2 Quoin



G2B Soap Bond Quoin
4" Return

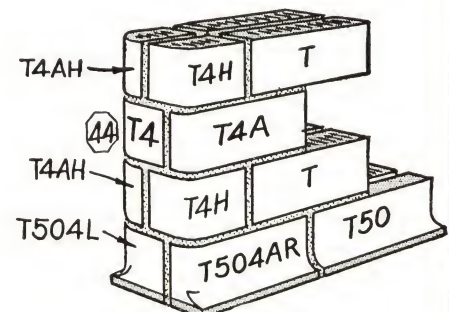
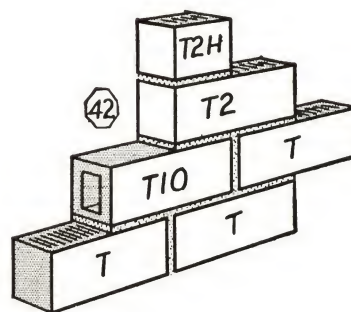
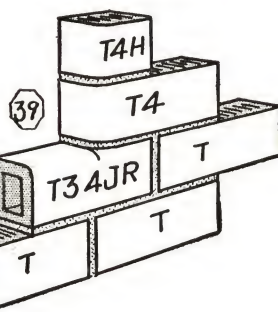
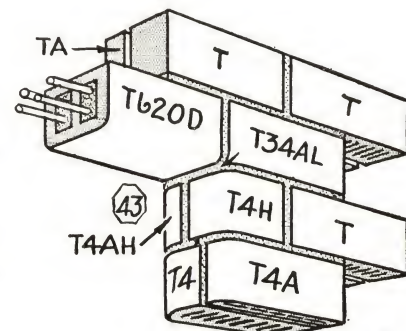
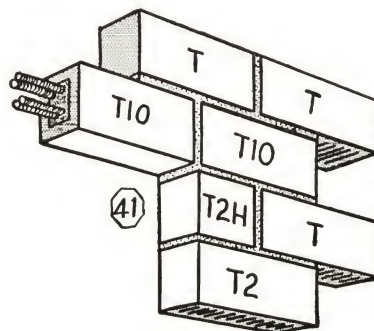
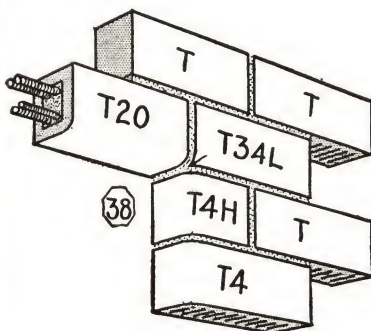
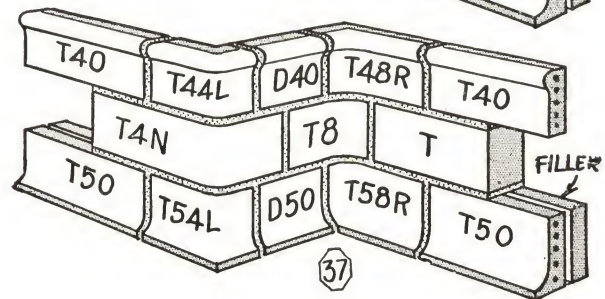
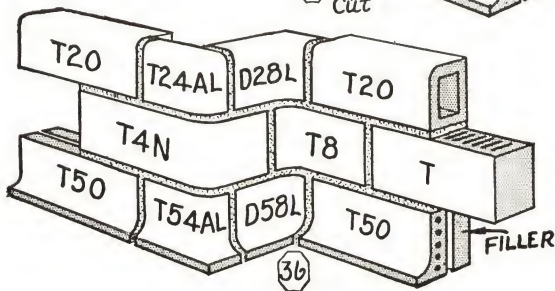
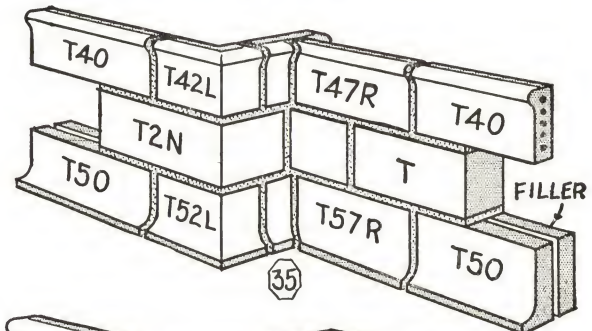
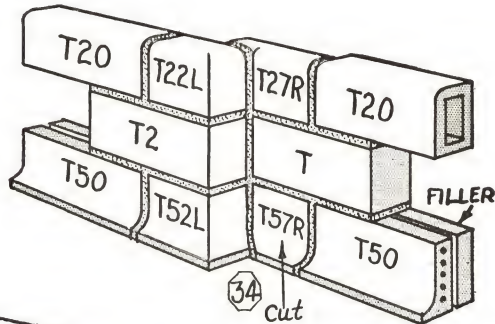


G4 Bullnose



G4B Soap Bond Bullnose
4" Return

The Above Are Suggested As Substitutes for Closure Units T2N, T2E, T4N and T4E.



NATIONAL SHAPE STANDARDIZATION

EXPLANATORY NOTES

SYMBOLS in circles or ovals shown in shape drawings indicate the Shape Group, determined by the amount of Special Shop Work required in manufacture and the average percentage of recovery from the kilns.

- (S) Indicates Stretcher group with 4" ($3\frac{3}{4}$ " or $3\frac{7}{8}$ ") bed width.
 (S2) Indicates soap stretcher group with 2" ($1\frac{3}{4}$ " or $1\frac{7}{8}$ ") bed width.
 (S6) Indicates bonding stretcher group—6" ($5\frac{7}{8}$ ") bed width.
 (S8) Indicates bonding stretcher group—8" bed width.

- (SQ) Indicates quoin or closure (Stretcher plus quoin differential).
 (S2Q) Indicates soap quoin or closure (Soap stretcher plus quoin differential).
 (SD) Indicates two face stretcher (Stretcher plus two face differential).

- (1) Indicates Group I shapes—Bullnose, Octagon and Square Sills.
 (2) Indicates Group II shapes—Caps, Coves and Bullnose Sills.
 (3) Indicates Group III shapes—Lintels, Radials, and other double radial stretchers, additional two faced Group I and Group II shapes.
 (4) Indicates Group IV shapes—Arch Units and Corner Fittings—hand-made.
 (5) Indicates Group V shapes—Radial Fittings and Group IV shapes with additional finished faces.

6" and 8" bonding stretchers in Salt Glazed will take two face differential when ordered either glazed two face or smooth back.

RETURN indicates the depth (return) of the finished head or short face of a quoin (square closure) or bullnose (round closure).

REVEAL indicates the depth of the top face of a sill or cap or the bottom face of a lintel. Reveals shown shaded are not finished.

RIGHT OR LEFT HAND SHAPES shown are of course available in the opposite hand. When facing a shape and the long face is to the

right, it is a right hand, and vice versa. (Suffix L is left and suffix R is right.)

SPECIAL LENGTHS. All lengths not shown are cut on the job by the contractor. Cuts should be made by carborundum or suitable abrasive wheel.

SCORED OR SMOOTH BACK UNITS. Stretchers may be shipped with scored back and/or end or smooth back and/or end or a mixture unless Stretcher Smooth Back is specifically ordered. On all other units surfaces not shown as "finished" may be smooth or scored at option of manufacturer.

CORING. Type and direction of coring is optional with manufacturer.

QUOINS. It is unnecessary to order quoins in salt glazed or clay coated units unless more than 20% of the total stretcher order is required in quoins.

BULLNOSE RADIUS. 1" Radius Bullnose is standard. Any radius other than 1" will take the next higher shape group.

ANGULAR SHAPES of odd size (other than 90° and 45°) are made on special order. They are Group III if plane surface; Group V if cove, cap or other irregular profile.

RADIALS. Radial stretchers (plane profile) are Group III shapes. Fittings for these are Group V. Made on special order only.

ARCH UNITS are Group IV shapes—made to special order only.

SPECIAL CAPS, COVES, ETC., having profile other than shown as standard are made to special order only. Such specials are classed in at least Shape Group next higher than that for similar standard shape.

DECORATIVE UNITS with stenciled patterns are available on special order.

SIZES shown are nominal. (See specification tolerances) Standardized units are furnished only in dimensions shown on detail sheets. 2", 4" and 6" are ($1\frac{3}{4}$ ") ($1\frac{7}{8}$ ") ($3\frac{3}{4}$ ") ($3\frac{7}{8}$ ") ($5\frac{7}{8}$ ").

STANDARD GRADING RULES FOR GLAZED BRICK AND TILE

FIRST QUALITY OR A-GRADE

Units of the highest structural and mechanical quality with shading consistent with the manufacturing process employed, and with the tolerances given below.

TOLERANCES FOR FIRST QUALITY OR A-GRADE

The variation from the standard dimensions of glazed units shall not exceed the maximums shown below, nor shall the variation on any job exceed these maximums:

Where the length of unit is:	8"	12"	16"
Variation in dimension shall not exceed:	$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "
Where height of unit is:	$2\frac{1}{4}$ "	5"	8"
Variation in dimension shall not exceed:	$\frac{1}{16}$ "	$\frac{3}{32}$ "	$\frac{1}{8}$ "
Where depth of unit is:	$1\frac{3}{4}$ "	$3\frac{7}{8}$ "	$5\frac{7}{8}$ "
Variation in dimension shall not exceed:	$\frac{1}{16}$ "	$\frac{3}{16}$ "	$\frac{1}{8}$ "

Dimensions intermediate to those shown, shall have tolerances of next larger dimension.

DISTORTION FROM PLANE OR EDGE OF FACE OF FIRST QUALITY OR A-GRADE UNITS

The maximum tolerance for distortion of the plane and/or the edge of the face of A-Grade glazed units shall be:

1-Brick Equivalent size	(17 to 19 sq. in.)	$\frac{3}{64}$ "
$1\frac{1}{2}$ and 2-Brick Equivalent size . . .	(20 to 41 sq. in.)	$\frac{1}{16}$ "
$2\frac{1}{2}$ and 3-Brick Equivalent size . . .	(42 to 63 sq. in.)	$\frac{3}{16}$ "
$6\frac{1}{2}$ -Brick Equivalent size	(117 to 129 sq. in.)	$\frac{1}{4}$ "
Larger sizes		$\frac{5}{16}$ "

and only a reasonable percentage of all units shall approach the maximum.

Note: When units which are either concave or convex are laid upon a plane surface, the apparent variation is greater than the actual variation from the plane of the unit.

SECOND QUALITY OR B-GRADE

Units imperfect mechanically and/or beyond the maximum tolerances for A-Grade, and/or slightly chipped and with shade variation, and with glaze or coating defects.

THIRD QUALITY OR C-GRADE

Merchantable units having pronounced mechanical or glaze imperfections and/or noticeably chipped and with substantial shade variation.

FOURTH QUALITY OR D-GRADE

Units which will not meet the specifications of the above grades, and which are sold for uses similar to those of common brick.

STANDARD SPECIFICATIONS FOR GLAZED BRICK AND TILE

1. DESCRIPTION

Structural Glazed Ware for the walls of (Schedule of rooms) shall be of First Quality (Salt Glazed) or (Ceramic Glazed) Structural Glazed Units made on a *fireclay body*. The field units shall be (State color and shade No.) with units

for (Cove Course, Cap Course, Trim, Borders, Panels, Etc.) and shall conform to the samples submitted and approved for this operation. The plans show the general scheme of decorative treatment and indicate where the colors are to be used.

2. SIZES AND SHAPES

Units shall be (State Face Dimensions) in face size and $1\frac{3}{4}$ ", $3\frac{7}{8}$ ", $5\frac{7}{8}$ " or 8" in thickness as shown on the plans. All necessary shapes shall be furnished as required. In general, all external corners, sills, jambs and lintels shall be bullnosed. At the floor there shall be a base (with or without cove) in

Shade (Contrasting to or the same as) the shade used in the field. (If a cap course is desired, state type and shade). (If header or bonding courses are to be used, so state). All two face walls or partitions shall be built of two single face units bonded.

3. QUALITY

All units shall be of the highest structural and mechanical quality with shading consistent with manufacturing processes and samples approved. All units shall be reasonably straight and true with finished faces free from chips, crazes, blisters,

crawling and other imperfections noticeable *at a distance of 5 feet*. All units shall conform to Standard Grading Rules of Glazed Brick and Tile Institute on page 25.

4. FINISH

All surfaces that will be exposed when the units are laid in the wall, shall be finished with a uniform glaze which shall cover all exposed surfaces thoroughly.

4a. The glaze of a ceramic unit shall be:

- a. Matt—(non-reflecting)
- b. Satin
- c. Glossy—(Lustrous—image reflecting)

4b. The glaze of ceramic glazed units or the finish of a clay coated unit shall be applied prior to final burning and shall be

made permanent and vitreous by burning.

4c. The glaze of salt glazed units shall be produced by introducing salt into the fire during the burning process.

4d. Salt glazed products shall not be used where ceramic glazed is specified.

4e. Clay coated shall not be used where ceramic glazed is specified.

4f. Facing Tile shall not be used where glazed or coated products are specified.

5. CORING

All units may be either solid or cored up to 45% of the gross sectional area. When specified for use in Post Office

workrooms or places where walls are unprotected against continuous heavy impact, units shall not be cored to exceed 25%.

6. STRENGTH

When used for load-bearing purposes, all units shall have a crushing strength of not less than 2500 pounds per square

inch of gross bearing area.

7. TESTS

The following tests may be made on ceramic glazes:

7a. **CRAZING, SPALLING, PEELING AND CRACKING:** A definitely controlled and recorded steam autoclave test shall be made as follows: Three units carefully marked for identification shall be tested. They shall be thoroughly dry and then placed in an autoclave and the steam pressure started and slowly brought up to between 25 and 30 pounds pressure in thirty minutes, the pressure then increased gradually to between 65 and 75 pounds in the next fifteen minutes, then increased gradually to 150 pounds in not less than fifteen minutes. The pressure shall then be held at 150 pounds, plus or minus 5 pounds, for a period of one hour. The pressure shall then be released by a gradual opening of the autoclave to allow a gradual cooling over a period of not less than thirty minutes, to room or hand-handling temperature. The brick shall then be removed and examined. Ink shall then be applied to the finish and allowed to stand for five minutes, the surface washed with a wet cloth and running water and any development of crazing, spalling, peeling or cracking may be cause for rejection.

7b. **IMPERVIOUSNESS:** Liquid ink or Methylene blue shall be applied liberally to the finish, and allowed to stand for five minutes. The surface shall then be washed with a wet cloth and running water, and examined. If any trace of the ink or Methylene blue shall remain, it may be cause for rejection.

7c. **OPACITY OF FINISH:** If opacity of the finish of the glazed face is required it may be tested by applying ink or

Methylene blue to the body of the burned product close to the finished surface. It may be grounds for rejection if, after five minutes, there is any visible indication of penetration of the coating by the liquid when viewed through the glazed surface.

7d. **ACID RESISTANCE:** A portion of the finished surface of one or more units shall be submerged in a 10% solution of hydrochloric acid for three hours, cleaned and examined. The color and/or luster of the finish shall not be altered by this treatment.

7e. **SALT GLAZES:** Salt glazes shall have a smooth, lustrous, light-reflecting surface, resistant to the acid test for Ceramic Glazes and resistant to pencil and crayon marks.

7f. **CLAY COATED:** This shall have a dull non-reflecting coating which will resist ink stains.

7g. **FACING TILE:** This shall be a "face brick" finish devoid of coating and subject to the same size and structural tolerances as glazed ware.

8. **ABSORPTION OF BODY:** When the units are intended for use where exposed to frost action, the absorption of the body of the unit by 24-hr. submersion in cold water shall not exceed 14 per cent, and in addition the units shall conform to at least one of the following requirements for absorption:

- (a) The absorption by 24-hour submersion in cold water shall not exceed 7 per cent.
- (b) The ratio of the absorption by 24-hour submersion in water to the absorption by 5-hour submersion in boiling water shall not exceed 0.80.

CHART OF STANDARD FINISHES AND COLORS

FINISHES

CERAMIC GLAZES: Glossy—Satin—Matt

SALT GLAZES: Gloss Finish

COLORS

Salt Glazes	Ceramic Glazes	
	Light Shades	Trim Shades
Ranges of: Grey Shades Cream Shades Light Buff Shades Medium and Dark Buff Shades	White Cream Ivory Buff Tan Grey Various Light Speckles Stipples of the above colors Mottles of two or more of the above light colors Mottles of light and trim colors, predominatingly of light colors.	Black Browns Blues Greens Yellow Stipples or mottles of the above dark colors Mottles of trim and light colors predominatingly dark

Special Colors are available by special arrangement with various manufacturers

MEMBER COMPANIES

Arketex Ceramic Corporation	Brazil, Indiana
Ayer-McCarel-Regan Clay Company	Brazil, Indiana
Cambria Clay Products Company	Blackfork, Ohio
The Claycraft Company	Columbus, Ohio
Continental Clay Products Company	Kittanning, Pa.
Hanley Company	101 Park Ave., New York, N. Y.
Hydraulic Press Brick Company	Indianapolis, Ind.
The Mapleton Clay Products Company	Canton, Ohio
National Fireproofing Company	Pittsburgh, Pa.
The Stark Brick Company	Canton, Ohio

GLAZED BRICK & TILE INSTITUTE

Affiliated with

STRUCTURAL CLAY PRODUCTS, INC.

1427 EYE ST., N.W.

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WASHINGTON, D. C.